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On the Use and Abuse of Purgative Medicine. By DR. KINGLAKE.

THERE is no department of medical practice that is more important to the welfare of mankind than the correct administration of purgative medicine. Momentous as are its objects, and fraught as it is with the most serious consequences, it is resorted to with a familiarity and confidence implying that its operation, however powerful, is still harmless. This opinion arises from a misapprehension that the peristaltic or contractile power of the intestines may be indefinitely excited without incurring any considerable ailment,—that the evacuant effect affords relief,—and that no material inconvenience is likely to result from the disordered action that is induced. This is an erroneous notion, and does not sufficiently discriminate the condition of intestinal function that may or may not need the aid of purgative excitement.

The healthy function of the intestinal canal requires that its contractile power should be duly active, at once to preserve its natural energy and to obviate accumulations that would prove deleterious by bulk as well as quality. The peristaltic power of the intestines is essentially connected with the digestive process, as commenced in the stómach and proceeding to its ulti-

mate completion in the bowels. If deficiencies occur in this function, redundant and ill-conditioned feculencies are the necessary consequence, which will produce hurtful distention and irritation.

If this state be protracted and daily aggravated by new accessions of offensive accumulations, it is easy to perceive that a source of disease must be created that will molest and disorder in various degrees and forms of violence. This morbid state is too constantly generated by obtruding on the stomach indigestible quantities of alimentary and other substances, which reaching the bowels in a noxiously crude state, oppress and distend them, so as to render the contractile power incapable of transmitting such an unwieldy mass of obstructing contents. An early consequence of this *remora*, or unseasonable detention of undigested materials, is a state of intestinal distention that incapacitates the contractile power for spontaneous exertion, similar to what occurs in an over-distended uninary bladder, and in the vascular plenitude that is characterised by the morbid condition of arterial and venous plethora. The capability of contracting in those cases is suspended by the existing fulness, which acts as a dead weight on the vital power of the distended parts, sinking it into a state of torpor or deficient action, and sympathetically extending, either to particular parts or to the system at large, morbid disturbances of greater or less severity, according to constitutional and other attending circumstances.

The indication for the use of purgative medicine is confined to the necessity for removing substances from the intestines, that have been unhealthily amassed, owing to an inefficient action of the peristaltic power. A depression of vital energy in the transmitting exertion of the bowels, with the augmenting redundancy of noxious contents arising from such an enfeebled state, is a condition of disease of insidious growth and portentous tendency. It occurs much more frequently than is apprehended, and perhaps may be truly said either to occasion or aggravate a great majority of the morbid derangements that disturb the healthy action of vital power. Indigestion with its endless train of distempered feelings, as well in the first passages as in remote parts of the frame, the various forms of febrile excitement and nervous agitations that disorder the healthful state, may be justly referred to the pernicious influence of inactive and surcharged bowels.

This unnatural state imperiously requires efficient relief, and affords an ample warranty for the free and unrestricted use of purgative medicine, until it be fully corrected and over-

come. To desist before this has been accomplished, is to fail in rendering the necessary assistance. The purgative means, therefore, should be continued until the alvine discharges shall have been sufficiently copious to have dislodged all that could have offended, and to have enabled the peristaltic or contractile power of the intestines to resume and steadily perform its healthy account.

This extent of requisite aid will be evinced by the displacement of ill-conditioned feculencies, and the restoration of such as exhibit the appearance of being the indecomposable remains of alimentary substances, with such bilious, pancreatic, and mucous admixtures as are naturally deposited in the intestinal canal for seasonable expulsion. If these excrementitious substances be unduly retained, a source is laid for immediate inconvenience, increasing disease, and eventually for distempers that would appear to have been induced by other causes, and which, unhappily for appropriate and effectual treatment, are subjected to modes of remedy not less inapplicable than unavailing.

Whatever may be the existing debility, however the general strength may be either depressed or exhausted by protracted ailment, if obstructed, or rather scantily relieved bowels be the lurking cause, no adequate remedy can be obtained without exciting the prevailing torpor in a manner that would renew an healthy exertion of the peristaltic power, and thereby remove noxious redundancies and prevent a re-accumulation of them.

The usual remedies of bleeding, vomiting, sudorific, and alterative medicine, directed on these occasions to relieve active symptoms, to determine to the surface, and to correct and improve vitiated secretions, may respectively alleviate, but cannot afford the requisite aid. Whilst the bowels remain inactive on their unwieldy contents, incessantly becoming larger in quantity and worse in quality, no measure of relief short of the direct and sufficient removal of this offending cause can furnish the necessary assistance. All other remedies but those which act as evacuants in the first passages are subordinate and of minor consideration. An excitement of the peristaltic power of the intestines unremittedly sustained until the evil of redundant and vitiated secretions be removed, is the sole remedy that merits reliance, or that is capable of fulfilling the curative indication which existing circumstances furnish.

After this object has been effected, the general strength instead of having been reduced by the purgative process, will have been sensibly amended, and every morbid feeling that has

been generated by the prevailing inaction of the bowels, whether near the seat of disease or more remote, whether in the form of local pain or of general irritation, will more or less speedily subside, and satisfactorily evince that the correct mode of treatment has been adopted. When this beneficial result has been obtained, it would be injurious to persist in the use of purgative medicine. The object for which it was instituted having been accomplished, it would be superfluous, harassing, and perhaps destructively injurious, indefinitely to push its influence. To go beyond the point that is indicated by the circumstances of the case, is to act without authority and to incur a greater or less degree of positive mischief. The advantages of necessary and legitimate purgation are inestimably great, but the injurious consequences of carrying the remedy too far may be deplorably severe and even irretrievably disastrous.

The scybalous and indurated collections that are apt to amass in the intestines, are often large in quantity, and are probably sometimes partially retained for many weeks instead of being daily evacuated. When thus impacted and confined, the stimulating influence of brisk cathartic medicine is necessary to dislodge the obstruction. The more mild or slightly laxative kind of medicine may induce scanty discharges, or the escape of the more liquid parts of the excrementitious contents between the villous coat of the bowels and the obstructing substances. Castor-oil, manna, the neutral salts, and such lenient articles, will pass over the impeding obstacles to a free discharge without effecting the necessary relief. Calomel, jalap, scammony, aloes, &c. given in active doses at intervals of six hours, until the requisite expulsion has been effected, and the subsequent evacuations have become well-conditioned, will be found alone commensurate with the benefit that should be procured. Not only the local inconveniences in the region of the abdomen, but every feeling of a febrile and nervous character, the chilliness that indicates an unequal distribution of the circulating fluids, and the congestive fulness on visceral parts denoting local plethora, will subside when the intestinal canal has been sufficiently disencumbered, and its contractile power has been restored to a firm and natural state of transmitting or evacuating action.

Indolent and oppressed bowels soon induce a derangement of the biliary secretion, rendering it either excessive, deficient, or vitiated. The gastric, pancreatic, and even mucous secretions from the villous coat of the intestines, are affected by an unhealthy state of the peristaltic action. This morbid condition of the bowels, shown in an irregular and insufficient exer-

tion of their contractile power, obtains slowly, and gradually establishes itself, so as to assume a character of disease that is too obscure to be readily recognised, but which possesses a latent severity that undermines health at its chief source, that of nutritive digestion.

If the bowels perform not their allotted portion of the digestive process, and fail in forwarding by seasonable expulsion the feculent remains of alimentary substances, deficient nutrition and morbid excitement must inevitably ensue. It is the object of purgative medicine fully to discharge all lingering redundancies from the intestinal canal, that the distempered action of the first passages may be overcome, and the various secretions naturally deposited in them be duly restored, together with the healthful tone and activity of the peristaltic power. Those advantages being effected, the diseased sympathies that may have been awakened in different parts of the frame will cease, and the salutary action of vital power will resume its wonted establishment.

An unerring test of those benefits having been obtained, is afforded by a renewal of the natural state of the intestinal evacuations, both in respect of quantity and quality. Great and blameable remissness occurs in medical practice, in not actually inspecting the condition of those discharges, when the bowels have been irregular and defective in their transmitting function. The reports of unprofessional persons on this subject, are too vague and undiscriminating to be at all satisfactory. The importance of the object merits the closest attention, and should never be neglected as unworthy of notice. It is by the colour, consistence, odour, and the greater or less uniformity in the substance of the intestinal excrements, that either the degeneracy from the natural state is to be estimated, or the restoration to the healthy condition may be inferred.—The bulk as well as aspect of those evacuations should be regarded. Scanty discharges will speedily vitiate the quality, and when the appearance is unhealthy, it is fair to conclude that the evacuations are insufficient. True it is therefore, that the quantity and quality of the contents of the bowels are correlative conditions, mutually involving each other's existence.

A renovation of the healthy state of the intestinal canal, in reference to its digestive and transmitting function, is the curative intention of purgative medicine in those morbid cases that have arisen from constipated bowels and a faulty state of the alvine secretions. When this correction of disease has been effected, no farther warranty remains for prosecuting a cathartic mode of treatment. If purgative medicine be urged beyond

this point, it will exceed the salutary limit, and produce rather than remove disease.

When oppressive distention of the bowels, and the consequent torpor or deficient energy occasioned by it, have been sufficiently relieved, it would be to risk incurring a positive mischief to persist in the use of purgative medicine. This error, however, is not unfrequently committed, and the deplorable consequence is an increased debility of the intestinal canal, with an additionally vitiated state of the various secretions entering into its cavity. When a ready transit of bile is afforded from the liver to the duodenum, and the abdomen is free from hardness or distention, as the result of purgative medicine, the reasonable presumption is, that the purpose meant to be served has been fully answered; and to push evacuation further, would be to substitute ulterior disease for the relief which had been obtained.

It is observable that an unnecessarily protracted use of purgative medicine is apt to induce the aspect of vitiated discharges which the early employment of them removed; and were this ideally morbid appearance to be assumed as an authority for the continuance of the mistaken remedy, the most injurious effects may be produced, among which may be enumerated, a detachment of the mucus necessary to defend the villous coat of the intestines from the stimulating acrimony occurring in the first passages; or the long-continued excitement may so stimulate the secerning vessels supplying the mucous covering, as to cause them to furnish a fluid too thin and irritating to serve that defensive purpose, or even to produce blood itself, shown in sanguineous or dysenteric evacuations. These occurrences appertain to the evils of mal-treatment, and for the production of which a correct application of the practice cannot be held amenable.

If general excitement, visceral inflammation, or any kind of functional disturbance, whether sensorial or irritative, should be effectively remedied by appropriate treatment, it would be preposterous to persist in the means of relief that had been successfully employed. Such work of supererogation would be necessarily pernicious, and likely to induce a state of ailment not less perilous than that which a correct use of the remedial means would have permanently removed. In the employment of purgative medicine, a similar limit should be observed. The intestines, when oppressed and unfitted for a due performance of their function, require to be evacuated to a given extent; beyond which, the relief sought for would not be

obtained, but, on the contrary, disease would be the probable result.

Remedies are allied to certain morbid states needing their salutary agency. When those states have been sufficiently corrected, a continuance of the agency would be to direct its influence against the relieved or healthy condition, which, if efficiently operative, must produce more or less of malady.—To transmute remedial into noxious agents by an unlimited or licentious use of their powers, is to invert the order of medicinal aid, by causing it to generate rather than subdue disease.

II.

(From the London Medical Repository.)

An Analysis of Medical Evidence; comprising Directions for Practitioners, in the View of becoming Witnesses in Courts of Justice; and an Appendix of Professional Testimony. By John Gordon Smith, M. D.

Since the period at which Dr. Gordon Smith set himself seriously to work in order to remove the stigma which was attached to the state of medical jurisprudence in this country, by the publication of his 'Principles,' this branch of medicine has made extraordinary and rapid advances. As proofs of this, we have only to refer to the works which have appeared on the subject, and to the continued notices that the science has received from various quarters: amongst the former, the papers published in the Edinburgh Medical and Surgical Journal, and the series of articles in the two former Volumes of the Medical Repository, may be ranked; and amongst the latter, the allusions which have been made from the bench to the standard works of this country on the subject.

The manner in which the author's work on the 'Principles of Forensic Medicine' has been received by two of the learned professions, and the high commendations which have been passed on it both in professional and in extra-professional journals, have entirely justified the opinion which we gave as to its merits. To this, as to other circumstances, however, we would not have alluded at present, were it not to imply that the great importance which the judicial, as well as the literary tribunals of the country have attached, and every well-informed reader has attributed, to this particular application of medical science, proves the propriety of requiring from the professional student a regular course of study of it. It is to be hoped

that, at a period when the numbers of those entering upon the prosecution of medical studies are so very great, and since there is every prospect, from the circumstances of the times, that the numbers will be still greater, the constituted guardians of the Profession will exert the very efficient means they have in their power, of at least preventing its respectability from degenerating. And we will take the liberty of suggesting to them, that they should require respectively that those entering upon professional studies, or professional servitude, shall previously have obtained a much more liberal education than is at present thought necessary by many of those concerned in directing the choice of a profession, and by the individuals themselves by whom the choice is made. If this important matter be not better attended to amongst us than it lately has been, our science will degenerate into a cunning craft, and as respects classical and scientific attainments, many members of the Medical Profession will soon be far outstripped by the labouring mechanics of almost every town of the kingdom. The requisites here suggested, however, may not, perhaps, be directly effected by some of the corporate bodies whose duty it is to watch over the interests of the Profession; but these bodies may require a course of professional study which few will think of encountering without having previously passed through those initiatory studies which will the better prepare them for the former, and which as few will enter upon to whom the latter are not considered as a part of their hereditary rights—they may require that an adequate period shall be spent in medical study, and that every professional source of information shall be frequented during that period. Were this salutary reform actually brought about, we should hear less of the overcrowded state of the Profession, and of the disreputable practices which some in it resort to.

We have stated that every source of professional information ought to be frequented by the student. Who can deny the propriety of this? and, still farther, who can deny the propriety of this being required of the student when he comes to claim his admission to examination before one of these corporate bodies, to which the regulation of the Profession is very properly committed? If these propositions be granted us, let us hope to see it directed that, in addition to attendance on a sufficient number of *full* courses of instruction in every department of medical knowledge, attendance be also required on lectures on medical jurisprudence—a study, the importance of which to the character of the Profession generally, of its members individually, and to the administration of justice to the

community, is now so apparent as not to admit of dispute. It is to be hoped that the lectures which the author of the work now before us is at present delivering at the Royal Institution, will be introductory to some due arrangement for the permanent establishment of regular courses of instruction on this important and interesting branch of medical science; and, from our knowledge of the abilities, the zeal, and acquirements of the author, there is no one whom we should wish to hear delivering them in preference to him.

Having thus adverted to the propriety and policy of medical jurisprudence being made a branch of professional education in this country, we must now turn to the volume before us. And here we unhesitatingly state that its pretensions are original, and that it is an unusual application of recondite principles to an important practical purpose, the difficulties of which many have been loud enough to deplore, but no one had previously attempted to remove. Of the success of this attempt at removing the difficulties in the way of medical evidence, we are inclined to think most favourably; and to infer that, if it be properly taken advantage of, the Profession generally will think as we do, and be the gainers by the precepts which the author inculcates and the curious and learned researches which he has made.

The author *first* has given, in the body of the work, an 'analysis of medical evidence,' and has viewed his subject in all its relations to the circumstances of the witness, and to the particular court to which he may be called. This part of the work is divided into ten chapters, of which we shall give a more particular account in the sequel. To this part is added a very copious and closely printed Appendix, part first of which consists of additional notes, and of elucidations of the text; the second part of 'medical depositions and examinations, with an occasional commentary, and notes correctional and explanatory.' The text and first part of the Appendix are almost entirely drawn from the author's own resources; the second part is derived from law-reports and various other sources, and is made subservient to the illustration of the doctrines of the preceding text, and to serve the purpose of a Supplement to the author's 'Principles of Forensic Medicine,' 'it having been impracticable to imbody within the limits of that work so great a portion of illustration as, for the clearer elucidation of its didactic matter, would have been desirable.'

In this part of the work, more particularly, the author has pressed, to a great extent, law-books into his service. Of the propriety of this, and, indeed, the necessity of blending law

with the particular medical discussions in which he has been engaged, there cannot be the least doubt. Nor can the consideration of the relation between the two sciences, where not only relation, but obvious connexion, really exists, be supposed out of the path of the Physician; when useful information can be given to medical men, they ought to be grateful to find that there are some who forego the lucrative pursuits of the Profession to save them the dry, and, to many, the hopeless search. 'It was the opinion of Junius that to investigate a question of law demands some labour and attention, though very little genius or sagacity'—says Dr. Ferris, quoting Dr. Goodall's Vindication of the College of Physicians; and we doubt not that many of our brethren are as capable of getting at the material facts of the statute-book as a common justice of the peace, and more likely to impart them in a manner intelligible to others, than a jurisconsult habituated to convey them in a technical form.

After a well-written and an ingenious preface, the author introduces his work with some very just remarks on the necessity of a medical man attending to the manner of his public appearance on every occasion. His observations at this place are so deserving the attention of the Profession, that we shall make no apology to our readers for the length of the quotation; the concluding part of which will show him the scope and tendency of the volume, as well as the spirit and style in which it is written.

"Amid the copious provision made, long since, for the qualification of those who aspire to the medical character, it is somewhat paradoxical that no formal or authorised attention has yet been paid to certain matters, of the most important nature. This neglect might, truly, be termed preposterous, when it is considered, that in some of these matters the Practitioner endures an unremitting impulse to exercise himself, and that upon them his fame and fortune too commonly depend. He may combine the skill and attainments of Æsculapius, with the accomplishments of Apollo, but of themselves, these will not ensure him distinction. There is something in the superficial, or decorative part of his character, to which mankind, in general, are more disposed to look, and by which they are exceedingly prone to estimate his claims. I allude to manners and deportment; to the social, as connected with the learned or ingenious man. This is an influence of the mightiest import; and upon no members of the great civilized family does its pressure weigh more heavily than upon us. Other men can separate between their personal and profes-

sional character, themselves and their duties. They often walk into the exercise of these, as they would into a garden, where they follow a plain, an obvious, or even an inviting track; and when time suits, if not exactly when they please, they walk out again, and with their extra-garments, may relieve themselves from the *burden* of compulsory observances, if custom has not, indeed, made them essential to their well-being, or perhaps even constituted them the very delights of life.

"It is not so with us. Our dutiful observances are so intimately and inseparably amalgamated with our identity, that we are, practically, strangers to times and seasons; ever on the alert, unremittingly goaded by the stimulus of circumspection, but, at the same time, unprovided with the advantages of instruction, in regard even to our professional deportment in society, beyond the general application of technical means for the accomplishment of abstract purposes of art—beyond, I would say, the *business* of medicine.

"And yet, to no class of men can the current coin of social intercourse be of more value; to few, placed in a sphere of corresponding dignity and importance, can it be of so much. What signifies, to the client, the urbanity of a sound and able lawyer, provided he applies the powers of his mind to the merits of the case, and discharges his duty towards the interests of one whom he may never see? Of what consequence is courtesy and kindliness of disposition to the beneficed clergyman? His income cannot be diminished, nor his occupation dissipated, discharge his duties, or treat those around him as he will. But if we look at the Physician, we see a member of society, whose active functions require to be discharged in a certain *manner*, otherwise he will exercise himself with but indifferent success, and probably lose opportunity of discharging them at all; with which he may forfeit his place in society, and his means of supporting existence. In short, the neglect of *Medical Ethics* is unaccountable. Those who do imbibe any feelings, or acquire any rules of conduct, springing from an acquaintance with that important branch of medical economy, do so—not in the schools—but amid the rubs and perplexities of life, under the tuition of that stern and unmitigating preceptor—*Necessity*.

"Whether the relations of medical science to the exigencies of public justice, and other departments of state economy, may with propriety be ranked under the head of *Ethics*, I shall not stop to inquire: but they have, in this country, been treated with similar neglect; whereby medicine has received

much unjust reproach, and those who have been called from among her ranks, to apply those relations, have been unnecessarily lowered in the estimation of the world. I am far from insinuating that this has been the case without exception; but I fear not to assert, that the instances in which medical witnesses have come down from any judicial examination of importance, without suffering more or less injury, have not been many:—that those in which credit has been actually gained, have been fewer still,—and that I know of no instance in which it can be satisfactorily shown, that an individual reputation has been thereby established. Even now, after all that has at last been done among ourselves, to help the Profession to ample means of rescuing its members and their science from this pitiful state, is there any object of dread, paramount, in the eye of the Medical Practitioner, to the *witness-box?*

"Things ought not to be so; and almost any attempt to remove this blot from our escutcheon should be looked upon with a favourable eye. Such an attempt is the present publication, in which I propose to take a free and candid view of the situation of a medical man, acting as a professional witness in courts of justice; and in the execution of that task, I shall endeavour to convey some idea of the nature and importance of medical testimony; to examine more precisely than (as far as my knowledge and researches extend) has yet been attempted, into the obligations we lie under to discharge that duty, and the perplexities that surround it; endeavouring to ascertain what are the most promising or available means of removing them."

Chapter I. Informs the medical reader of the nature of *Evidence.* The author's observations on this subject admit not of analysis. He has referred to the best writers, and stated the law of the country on this topic, with clearness and precision.

Chapter II. "*Of the Obligation incumbent on the Medical Profession to give Evidence.*"—Here our author has given a view of the real state of the Practitioner in regard to exemptions, and obligations towards the public. As this topic has never been discussed before by a medical writer, we place the following remarks before our readers:—

"It is a complaint," says Dr. Percival, "made by coroners, magistrates, and judges, that medical gentlemen are often reluctant in the performance of the offices required from them, as citizens qualified by professional knowledge to aid the execution of public justice. These offices, it must be confessed, are generally painful, always inconvenient; and occa-

sion an interruption to business, of a nature not to be easily appreciated or compensated. But as they admit of no substitution, they are to be regarded as appropriate debts to the community, which neither equity nor patriotism will allow to be cancelled."

"I confess that I have, on a former occasion, quoted this passage rather inconsiderately; and having said so, I feel myself at greater liberty to animadvert upon a published opinion of so much importance, emanating from so respectable an authority as the late Dr. Percival, for whom, in every other point that I can recollect in his character and writings, I entertain the utmost deference. The complaint is represented as being made by *coroners*, *magistrates*, and *judges*. Of *magistrates*, I shall say nothing; they compose an order in the state, that may, indeed, be called the country's boast; their services are of the most important nature, and are not only discharged under much personal inconvenience, but in a manner hardly conceivable to those who view the thing in the abstract. If they do find *us* backward in aiding them, I concede to *them* the right of complaint. With regard to *judges*, it must have been the case, that our author knew of their complaining, otherwise, a man of such integrity would not have recorded so serious a charge against his brethren; but I should hope that few have received similar complaints from that quarter. However, taking the matter as it is alleged, and in its most flagrant form, admitting that judges have spoken (even on the bench,) uncourteously of us, I bow to the judges. The *coroners*, however, astonish me, and I must say that I cannot be so submissive to them. Do they find their brethren, the attorneys,* more ready to perform offices for which, "as citizens qualified by professional knowledge to aid the execution of public justice," it is well known that it is of little use to call upon them *sans solde?*† But it will be said that this retort is futile, because *we* are bound, in a way that others are not, to do all the labour that can possibly be required of us—even to build churches and bridges, cut canals and make roads; sup-

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* Most of the coroners are appointed from among this class of lawyers.

† This is by no means to be considered as a sneer against a highly estimable order; but lawyers are well known to be tenacious of remuneration. There want not, among ourselves, parallel instances; yet law is perhaps a luxury, while physic is a dire necessity to poor mankind. I believe the gentlemen of the other profession are not backward to assist the needy, who want not only redress, but money. The claimants, however, are comparatively few.

ply the country with jails, attend them as turnkeys, and, finally, "to aid *the execution* of public justice, by performing, without reluctance, the office that may be required from us," by a public functionary who shall be nameless, as soon as, in the rapid course of modern improvement, we shall become "qualified by professional knowledge" so to do.

"But I cannot, in sober thinking, persuade myself, with all my respect for Dr. Percival, that we are so deeply *in debt*. True it may be, that by law we are exempted from certain little, though troublesome exactions, as to personal service, which fall upon some of our neighbours. We are excused from sitting on juries, being parish constables and overseers; but I think I recollect instances of medical men being drawn for the militia, and I would rather get out of the way of a press gang.* Dr. Percival may call our services "an appropriate debt;" but debt implies something previously received; and he has himself looked upon the exemption (as far as it goes) as being allowed "in consideration of the diligent and assiduous discharge of professional duty, which the legislature has generally presumed to occupy the time, and employ the talents of Physicians and Surgeons, in some of the most important interests of their fellow-citizens;" which presumption, I take leave to say, was entertained, and not only entertained, but acted on, long before it became the practice to call upon us for such *taxes*, (I will not acknowledge the *debt*,) to so large an amount as is now required.† So that in truth these exemptions are but the acknowledgment of *a debt contracted by the community towards us!* I am confident that there are Practitioners who would prefer their share of liability, in regard to serving the

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* Let not the coarseness of this allusion defeat its claim to notice. All medical men do not powder very white, or go about their duty in silk stockings, and corresponding articles of outward adorning. Nor are the agents of the Lord High Admiral, upon such occasions, very apt to make nice distinctions. I knew a gentlemen *in holy orders*, whose person, manners, and habits, were far within the pale of delicacy which perhaps becomes the priesthood, who was taken from a vessel in which he was a passenger, and kept some time on board a king's ship.

† The relief in question is, to a certain extent, very ancient. By an act of Henry VIII. (quoted by Paris and Fonblanque,) the Surgeons had their privilege of exemption from bearing arms, (which "they and their predecessors, *from the time that no mind is to the contrary*, for the continual service and attendance that they daily and nightly, at all hours and times, give to the king's liege people, for the relief of the same, according to their science,) extended to discharge from constable, watch, and all manner of office bearing any armour; and also of all inquests and juries," &c.—*expressly because, in consequence of their serving some of these offices, many had perished for want of professional aid.*

offices in question, to the incessant demands under which they suffer; being, in some situations, absolutely oppressed by the frequency of those calls, more especially on the part of the coroner. The blame lies not, it is true, with him; but a considerate person in that situation, would make no *complaints*: for he has the power of compelling us to attend, and where that is the case, to complain of our absence, is reflecting on himself."

We perfectly agree with the view here taken of the requisitions to which the Profession is liable; and cordially join with the author in saying, 'that the claim of the public on the labours, anxieties, and even property of the medical class of citizens, is founded in fallacy; that it is a mistake on every principle of equity, and an imposition in point of fact. The Medical Practitioner, if weighed in the same scales as other men, owes not a particle of service to the state, or to the public, on the score of concessions yielded to him in return, or implied by any courtesies, with which his individual citizenship may have hitherto been taken for granted to be endowed. The exceptions in question, (now amounting to little, whatever may have been their primary importance,) were granted not to us, or clearly at least not for our benefit, but by the public to themselves; which public have been in the habit of reaping the advantage, while we have paid the cost.'

In a note in the Appendix, on the *appointment of coroners*, the author offers some just remarks, which we quote as an inducement to medical men to offer themselves more frequently as candidates for the office of coroner.

"These officers are not *necessarily* chosen from among lawyers; there are some of the Medical Profession; and I have heard both magistrates and lawyers admit that they ought to be so more extensively. By far the greater portion of the coroner's duty relates to the causes of death under unusual circumstances; and inquests would, perhaps, be more efficiently held, if conducted under the superintendence of men of physical science, conversant at the same time with the nature of evidence, and the forms required for judiciary satisfaction. All that can be requisite, in regard to these latter, will not be difficult of attainment to a man of ordinary parts and moderate application. *Coroners' law* lies within small compass; and to acquire a competent knowledge of the duties of that office, must be a less arduous task than to become an efficient justice of the peace. I should like to see the Surgeons of England more generally appointed to these situations. *Burns's Justice*, *Blackstone's Commentaries*, and probably the occasional

study of an act of parliament, may comprise the greater part of the indispensable lore—if not, the distance it may be necessary to travel beyond these cannot be very great; and a knowledge of the route is by no means difficult of attainment."

As a consequence of the unjust demands made on the medical Practitioner, without thanks or reward, the author complains here and in the sequel of the practice of allowing pupils to give evidence in matters of opinion, and on occasions when the depositions of well-qualified medical witnesses are requisite to aid the inquiries of public justice.

Chap. III. treats of the very important subject of *Perplexities of Medical Witnesses when giving Evidence.* Amongst other observations, we quote the following at random:—

"Medical witnesses, after being prepared to discharge their duty to the best of their ability, may find that the examination turns out to be a very different thing from what they anticipated: it may even be wide of the real point, and is sometimes purposely so. This may occur through want of acquaintance with the subject on the part of the examiner; in consequence of which the witness is exposed to the mortification of being misunderstood, and having his statements misapplied—of being asked questions that no person can answer—of being made, perhaps, a party to the triumph of falsehood and error—or of being rendered amenable to unmerited censure, for testimony that he never intended to give.

"Upon such occasions a timid or a stupid man may be ruined with his eyes open, because he is not adroit at opening his mouth. One is, under such circumstances, thrown entirely on his intrinsic resources: he cannot run home to his books, or into a brother Practitioner's house to state a difficulty, and have the benefit of information or advice how to get out of it. There he is, and there he must remain, and abide the upshot; and, (if he acquits himself badly,) endure the scrutiny and displeasure of the bench, the brow-beating of the bar, the scorn, laughter, or contempt of the audience, the discontent of his friends, and the exposure of the public press, with all the consequences that may follow to his reputation and fortune. It is on occasions of this nature that we ought "to have our wits about us," for no other help can be resorted to; and it is on such occasions that real superiority is likely to be fairly displayed. Nor will a general and accurate acquaintance with one's profession always do; but being too frequently relied on, it occasionally proves the *ignis fatuus* that leads our brethren into a slough, whence they get out sometimes in but indifferent plight."

As Dr. Smith very justly remarks, in continuation, "a dexterous advocate has a great advantage over any witness, however doughty; and he may contrive to lead a very intelligent one so far astray, as that the latter may be deceived into a train of admissions, the inferences from which are to be afterwards turned against him." The only remedy which the witness can have for this is to be cautious (as Dr. Smith proceeds to remark) in speaking, as well as in preparing to speak; "and he should on no account answer a question till he clearly understands it, or pretend to frame an answer when he knows nothing of the matter. He should avoid conjectural observations, and continually bear in mind that what he says must stand upon record as signifying what he means."

Chap. IV. Of the Difference of Courts.—Here the author labours to impress the mind of the Practitioner with the importance of his evidence, in the first instance, before the coroner, both from the consequences that may result to the accused, and to the witness himself.

"Nothing can be more important than the duty which a medical man may have to perform upon such occasions. His dictum may be the influencing consideration that directs the issue. Should he, therefore, be the means of discharging a murderer from amenability to the law of the land, as prescribed by God himself, what will be thought of him? or what can he think of himself, should it be discovered that he acted from ignorance, or some other impulse under which it was, on his part, wrong to be? On the other hand, (and this, perhaps, is the common abuse arising from imperfect preparation for the discharge of such a duty,) if he be the means of shutting up in prison, among felonious characters and the depraved of every description. an innocent and respectable person, under an accusation of the foulest of crimes; of taking that person, it may be, from his family, and in doing so, taking from that family their bread, and from both their reputation, or very likely their desire and future means of getting through the world by honest industry; (for confinement in jail, and a trial for life, do not add to a person's claims to estimation;) he can rarely leave the unfortunate being on quite so good a footing, in this respect, as he found him. I ask, if a medical witness be the cause of all this, when the upshot may prove that he ought not to have done so, how can his pillow contribute to the repose of a head so badly or so dangerously furnished with ideas of duty and knowledge as to its performance?"

"But this is not all—though it may be considered that I have drawn a picture of imaginary horrors. When the trial

takes place our witness will be wanted again; and when he makes this second appearance, under the solemn circumstances already described, it will not be to receive the thanks of the court for the trouble he has already taken in "aiding the execution of public justice," or merely to prove his own signature to the coroner's examination,—no no. He is handled *de novo*—circumstances are now more minutely and more pertinaciously inquired into; his qualifications may be scrutinized; and—the *cross-examination*—think of that!—Should better information have fallen to his share during the time that the prisoner has been "rotting in jail," I will not conceive that he may be reluctant to acknowledge it; but, on the contrary, will suppose that it is all displayed. If so, then comes the excruciating inquiry, why did you not say so before the coroner? A. I did not then know that it was so. Why did you not know? Were you not then supposed to be as competent a member of your profession as you are now? It was your business to know. Where were you educated? What was the course of your studies? Who were your teachers? How long did you attend on their instructions? and—What testimonials have you received as to your fitness to exercise the functions of whatever character it may be by which you are designated and reputed? These and other awkward interrogatories await the foolish man who runs into the clutch of a prisoner's counsel, by conduct such as that against which I have uttered a warning."

As an illustration of the author's style, we cannot, perhaps, quote a passage more to the purpose, than the following account of an inquest which he witnessed:—

"Not long ago, an inquest was held at a short distance from London, the circumstances leading to which fell under my immediate observation, and were such as to induce me to attend as a spectator. The object was to inquire as to the manner in which a young unknown female came by her death. The body had been found floating in the Thames, and had been several days, apparently, in the water. The occasion was a perfect realization of what I have stated. There were from twelve to twenty honest tradesmen sitting round the public-house parlour; and the parish-beadle in attendance as officer of the court, with two or three witnesses—all grumbling, because Mr. Coroner was a little behind his time. It was the duty of the parish-Surgeon to have attended, and he had been duly summoned for the purpose; but he neither came nor sent any one in his place (probably in this he acted conscientiously,) nor forwarded any excuse; nor did the court seem to care

in the least about the matter—probably they thought it as well that he neither gave them nor himself any trouble. Another Practitioner, however, secured his admission by a voluntary offer to be of whatever service was in his power. After going through the formalities, from "O *yes*," down to "all persons not of the jury must withdraw," they returned a verdict of "Found drowned." There was no doubt as to the case being one of accidental drowning, even in my own mind; but, as I thought the body should have been opened, and had some knowledge of the foreman, who on his part was aware that such things had formed a prominent object of my studies, I signified to him that their verdict was unwarranted, for that although they had proof enough as to the *finding*, there had not been a rag of evidence to show that the deceased had been *drowned.* The honest, and well-intentioned official, went back instantly to his brethren with a view of getting them to re-consider their verdict; but that was a task not to be accomplished by a mere mortal juryman; it was too late—too late in the proceedings, and what was more, too late in the day.—It was "*nunc est prandendum*,"—there it ended, and the shadows closed upon a niggard sod that covered—nobody-knew-whom, and few cared what; a suicide, or a victim of complicated violence: the coroner filled up his paper, and the jury went to bed as they had done the night before, *requiescere in pace;* which was more than was supposed to have fallen to the lot of the poor stranger."*

Chap. V. Of Party Bias.—This chapter contains not merely a very requisite moral caution, but some useful views of the duties of the medical witness. Neither it, nor the next *chapter*—"*Of the most advisable Manner of giving Evidence*"—admits of analysis. The reader, in order to make himself acquainted with the author's opinions of these matters, must peruse them in the work itself. It is our wish to give a full review of its contents, but we have no right to appropriate its materials. We give the following extract from his remarks on professional secrecy:—

"To an advocate no such revelations are to be conceded, let him demand them ever so urgently; and I should hold that barrister personally amenable who would presume to ask me to disclose a secret, as a matter of course, merely upon his

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* "She was interred in consecrated earth, i. e. in the usual burying-ground, but, (as report went) without the rites of the church; and a clamour was afterwards raised that the grave had been robbed. I have alluded to the case in the "Principles of Forensic Medicine," page 8."

requisition. A *gentleman* will certainly hesitate as much in requiring, as another would in affording such disclosures; and they are never to be made but by express mandate from the bench. That being uttered, I can disapprove of no one's conduct in obeying. The expressed opinion of the judge will be a full indemnity for the witness, as far as all *extra-thoracic* dissatisfaction might exist; but I cannot be satisfied until I shall have expressed my regret, that when the sacred barrier of private confidence must be thrown down, it is to be done in so public a manner. Surely, on such occasions, the idle and unconcerned at least might, with great propriety, be excluded, as well as on others that I need not specify."

Chapter VII. regards more particularly *the observance of decorum*, which has more to do with our success as witnesses than might at first appear. The author here directs attention to decorum, first as respects the Profession to which we belong, and next as regards the occasion on which we are called. He very properly observes, "the age of mummery and mystery is gone by, and we must maintain in the Forum, as we should do elsewhere, the character of *gentlemen*, as well as of Physicians or Surgeons. Let us go forward in our natural character, armed with sobriety and circumspection, and adorned with dignity and modesty; for on no occasion can the *suaviter in modo* impart greater efficacy to the *fortiter in re*."

The following passage deserves attention on account of the liberal and amiable spirit which it evinces, and of the excellent moral precepts which it inculcates:—

"In considering the decorum due to the profession, it is impossible to overlook the deportment of practitioners towards each other. We are not unfrequently called upon to give our opinions as to the character and conduct of our brethren.—This must inevitably be the case, when the question is one that relates to the claims of a practitioner seeking recompense for professional services, or when the efficacy of these services is impugned. When we do think well of our brethren, such a duty must be indeed pleasant; for there is nothing more gratifying to a generous mind, than to bestow commendation on those who deserve it. Affirming (from the views I have been led to cherish of the true influence of our pursuits upon the duly regulated character,) that kindness and generosity are particularly congenial to the medical *philosopher*, I am under the necessity of adding, that a disposition to snarl and bite is *unnatural*, as well as unamiable. Sometimes, however, it is our duty to disapprove; but in doing so, there is a choice of modes. That case must be almost incomprehensibly flagrant,

which calls upon us to enter voluntarily or gladly on such a task, whether it is to be performed officially, or otherwise; but as our present business hardly admits of contemplating a *voluntary* appearance for such a purpose, the caution may be restricted to the manifestation of triumph, gratification, or any other disposition at variance with that regret which the misconduct of one of our body ought to inspire. It is said, that the world is not a judge of medical character; but I do not see any occasion at present for examining the truth of this assertion, knowing that the liberal and well-informed of the community are disposed to think well of us, and to appreciate (what cannot be denied without betraying ignorance of that which it is shameful not to know) the liberality of medical men. Let us beware of committing felony on our own reputation, by submitting to the baneful action of a different spirit. The great safeguard will be the habitual cultivation of liberal modes of thinking, which will incline us to do what we ought ever to aim at—to cover a brother's failings. Far be it from me to trammel the profession with obligations to screen from the consequences of criminal ignorance, one who may have presumed to stand in a place which he was utterly unqualified to occupy; but these are not often the objects towards which attention is in this way directed."

Chapter VIII.—Of the respective Claims of Experience and Authority, as grounds of Opinion in Matters of Science.—The author takes a very philosophical view of the words "experience" and "authority." He adopts Dr. Campbell's (the celebrated opponent of Mr. Hume) definition of the former, and divides it into "personal" and "derived." After examining the value of both species of "experience," he very justly observes, that they both rest entirely on memory, that memory often supplies us with the knowledge derived from the display of facts when all recollection of the facts themselves has vanished, and that it is through the agency of another mental faculty that we profit by experience, viz. association;—"the efficacy of which consists in preserving the knowledge imparted by experience, when all the facts upon which it was built are forgotten."

"In medicine," the author afterwards remarks, "we often use the word *experience*, where we should be content to employ *analogy*. This has been stated to be a more indirect experience: it is certainly a more easy source to draw from, and is often considered as a great proof of practical knowledge; whereas it displays little more than a turn for making comparisons. It is often the trick of the ready-witted; while expe-

rience does not impart the power of comparing, but, on the contrary, is itself the result of a comparison of particular facts remembered."

This view of the too common use of the word *experience* is very just. We find those who actually have the least real experience the most fond of using the term, because it is a ready passport to professional notice, and, as they suppose, the easiest way of getting more of what they stand so much in need of.

Of the term *authority*, the author observes, that it is the application of the testimony of others to the satisfaction of our own minds concerning the truth of any matter. "As on memory alone," observes Dr. Campbell, "is founded the merely personal experience of the individual, so on testimony, in concurrence with memory, is founded the much more extensive experience which is not originally our own, but *derived* from others." Viewed after this manner, *authority* and *derived experience* are nearly synonymous terms; but, as Dr. Smith has very properly observed, *personal experience* is not so well supported in the weight it should give to evidence as *authority* appears to be. It surely cannot be denied that when, 'after having satisfied ourselves of the truth and propriety of the testimony of those from whom the authority is derived, we adopt their representations, as satisfactory evidence of the truth, and make their opinions our own," the evidence is even more complete than when it rests only on our own experience, which, in medicine more especially, is liable to many fallacies, and which has been corrected by our individual reason only, if, indeed, we have at all reasoned closely on the matter, or ever looked to it otherwise than as to one possessing several points of similarity to that respecting which we are called to give an opinion.

For farther remarks on this topic we must refer the reader to the chapter of the work now before us, where the author has taken a very proper view of the relative value of experience and authority—a subject which interests most closely the medical philosopher, and one which has been hitherto unaccountably neglected by all medical writers. The following remarks are just: we quote them as a caution to those who err in the way alluded to:—

"Let me not be understood to despise experience—still less would I advocate a blind reliance on authority. I trust, that the more precise ideas I have attempted to attach to the terms used in this chapter, will set aside any such imputation. I am fully aware of the mischief that has accrued to medicine, from the overbearing influence of great names, and have long ago

recorded sentiments on that point, which I have not yet been led to change. Unless, however, a medical man enlarges his experience by a knowledge of, and deference to that of many others, his own personal stock is not likely to be worth much. All men are inclined to place great reliance in their experience; and those who have had least, are sometimes unusually vain of their share. Young men have often surprised me by the familiarity with which they have used the word, when evidently mistaken as to the nature of the thing implied; and I must confess, that my suspicions are apt to be excited, when I meet with a specimen of this purely experienced character, armed *cap-a-pie* with his experience, and eager to blind his less fortunate neighbours with its dazzling refulgence."

The two last chapters of the text contain various considerations in the way of *preparation* for giving evidence, amongst which the author treats the subject of previous experiments, particularly as respects cases of suspected or alleged poisoning. The injunctions which he here lays down deserve careful perusal. In the tenth chapter he adduces several very strong arguments for the study of Forensic Medicine, as the best mode of preparation, and points to the manner in which it should be studied. Here he insists on the propriety of teaching this branch of medical science by the delivery of a full course of demonstrative lectures, and not by casual inference, or indirect lessons, supplementary to some other subject; as at present but imperfectly attempted in the metropolis. He afterwards concludes this part of the work with some remarks on the advantages which the student of the science may derive from books, and on the necessity of the medical jurist being acquainted, at least, with the general treatises on the subject in our language, before he appears in court; as he may rest assured that barristers are well informed on points connected with medical jurisprudence, and well read in the treatises alluded to; and he may be equally well assured that they will not neglect to avail themselves of the superiority which they thus acquire over those medical witnesses who may come forward unprepared on the subject, and turn that superiority to the advantage of their client, and disadvantage of the witness.

Appendix, Part I.—This part of the work consists of additional notes, and elucidations of the text: it does not admit of review. We shall, however, give one or two extracts from it, as specimens of its matter and manner. The first note we here meet with contains some very just reflections on the medical schools of the metropolis. Those who have had an opportunity of comparing them with those of Edinburgh, Dublin,

Paris, and even with some others, will be able to appreciate the justness of the remarks the author has here made.

"With regard to the London schools, they possess numerous excellencies and great advantages; but these are deteriorated by vast defects and formidable abuses. The very essence of the thing is hostile to its true welfare, and perhaps there are more inadequate returns to society from this greatest collection of facilities, than from any other quarter—whether we estimate the number positively or comparatively."

"Several reasons for this, at once present themselves."

"*In the first place*, there is a general attempt, on the part of teachers, to execute *too much*. By this, it is not meant that they teach too much of any one thing, but that they attempt too many branches. For the ordinary practical purposes of the physician, a great diversity of knowledge is indispensable. Every medical practitioner ought to be an anatomist, a chemist, and a nosologist; and acquainted with the ordinary arrangements of medical knowledge which are designated Theory and Practice: but does it follow that he can be equally capable of *teaching all these?* True, he may tell all he knows, but does that constitute a Professor of Science?

"*Secondly*,—There is not time enough to teach. *A course of lectures* has no definite meaning: it is a matter so arranged as to suit the circumstances of the teacher or his pupils—constructed upon no acknowledged basis. The thing is too multifarious for any such influence to prevail over it. One man must make his course subservient to the convenience of attending that of another, and so on. If he do not, he will get no pupils.

"*Thirdly*,—In some other branches, it were (in my opinion) desirable that the candidates for public favour were fewer. I allude *generaliter*, to those in which the only thing required from the *professsor* is TALK. It is not so easy to *profess* anatomy, surgery, or chemistry, with one or two other branches; and, accordingly, I believe there is little scope for animadversion as to these.

"One of the greatest reproaches to all the divisions of the London school, is the neglect of Clinical Instruction.

"*In the fourth place*,—The thing altogether is little more than *a finish*. Probably the better educated part of the profession are indebted, for their solid acquirements, to very different sources, although it is here that all the debt is acknowledged, and all the eclat acquired. It is here that the qualifications are to be had, and the terrors as to obtaining them are to be experienced. Examinations, diplomas, &c. &c. all

contribute to eclipse the great object, and to endow the intermediate and very subordinate one of 'passing the hall' with paramount interest. So that in fact a metropolitan course of education is but 'a cramming,' and the *professor* of real importance is the grinder.

"*Finally*,—Pupils will not go where the lecturer does not stick to the practical, nor take the trouble to attend those parts of a course, upon which they run no risk of examination. It is a very *passing* affair indeed—as few months as the statutes will recognise; and as few teachers; and as few of their lectures, as will accomplish their fugitive purpose. Of course these remarks are not universally applicable.

"No wonder that there is no time for extraneous matter, which *Medical Ethics* may perhaps be considered."

The next note to which we shall direct the attention of our readers is that on *Medical Liberality*, which contains sentiments with which we cordially agree.

"The general tenour of this volume is so closely allied to the important branch of *Medical Ethics*, that little apology is required for here and there obtruding a few excursive strictures on the character and economy of the profession. On the present occasion, I shall chiefly restrict myself to an extract or two from the two choicest writers we have in the department—and of whom I have already had occasion to make repeated mention.

"But I beg to premise, that I assume not the pretension to liberality in *opinions* merely. Some of our foes will make even this a vice, by charging us with a latitude beyond the bounds of orthodoxy; and in this let every man answer for himself. While I believe we are particularly free from bigotry, I have also good reason to think, that we are not more extensively tarnished with infidelity than our neighbours. At all events, there are a few Christian precepts that I defy any order of men to observe more extensively than it is our custom to do—but to our quotations.

"With regard to the charge of infidelity, Dr. Gregory observes—"Men whose minds have been enlarged by knowledge, who have been accustomed to think and to reason upon all subjects with a generous freedom, are not apt to become bigots to any particular sect or system. They can be steady to their own principles without thinking ill of those who differ from them; but they are impatient of the authority and control of men who would lord it over their consciences, and dictate to them what they are to believe. This freedom of spirit, this moderation and charity for those of different sentiments,

have frequently been ascribed, by narrow-minded people, to secret infidelity, scepticism, or, at least, to lukewarmness in religion; while some, who were sincere Christians, exasperated by such reproaches, have sometimes expressed themselves unguardedly, and thereby afforded their enemies a handle to calumniate them. This, I imagine, has been the real source of that charge of infidelity, so often and so unjustly brought against physicians." Dr. Percival has a very curious and interesting note, connected with this and other points in the medical character. While he seems to admit, in some degree, the validity of a charge against us as to neglect of public worship, and attempts to account for it in a way that I am not quite satisfied is just,* he also praises the Catholic spirit which animated Sir Thomas Brown, and other worthies, and permitted them to worship God in all places devoted to his service. He goes on to quote Dr. Samuel Parr, who in one breath allows to physicians the pre-eminence over the other liberal professions, in erudition, in science, and in habits of deep and comprehensive thinking, and charges some of us pretty roundly with a propensity to scepticism. He is complaisant enough, however, to ascribe this to "metaphysical principles, which evince the strength, rather than the weakness of the human mind, when contemplating, under certain circumstances, the multiplicity and energy of physical causes." He enumerates several by name who have been distinguished as honourable exceptions; and among them Gregory, whose sentiment, above given, Dr. P. shortly afterwards quotes.

'To this I must add one excerpt more, from the same article: "Perhaps no profession is more favourable than that of physic to the formation of a mental constitution, which unites in it very high degrees of intellectual and moral vigour; because it calls forth the steady and unremitting exertions of benevolence, under the direction of cultivated reason; and, by opening a wider and wider sphere of duty, progressively augments their reciprocal energies." I hope this will tempt the reader to repair to the source whence I have derived these excellent remarks, and where many more will reward his curiosity, and benefit, I hope, some nobler impulse.

'Let me hazard, by way of inference, that a blind belief, or one countenanced by ratiocination, may, for aught I am dis-

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*"Medical Ethics, note xii. In my humble opinion, the blame is more ascribable to neglect on the part of parents and guardians, than to the natural influence of medical, rather than of other studies."

posed to say to the contrary, be equally advantageous to the possessor; but I cannot lay reason at the feet of those who would trample on it—the less so, as the implicit followers of guides, often not clearer in vision than themselves, are very apt to bespatter, with the mire of the ditch into which they tumble, those who would help them out. It is but a sorry compliment to Christianity, to assume that it cannot even outshine the lights of science; and the opinion cannot be entertained but by those who are unacquainted with the real history of the scientific character.

'As to *liberality* of a lower cast—that which respects the sordid affairs of human life,—I boldly demand to be told, what class of men do *so much* to alleviate the distresses, and to promote the welfare of society, without worldly recompense? It is not unusual to hear of advantages to ourselves, in much of what is done in this way. It is an unworthy insinuation—but, for brevity's sake, I shall for once admit it, and to the fullest extent to which it can be urged. Having done so, there yet remains ample and sufficient warrant, upon the *purest grounds*, to repeat the demand.

'Shall I be pardoned an anecdote? It is *literally* a fact, and very widely applicable. A Surgeon of my acquaintance, of most liberal views and conscientious principles, was called to see a person in the garb of a gentleman, who, in travelling through the place, was overturned in a carriage, and apprehended that he had dislocated his shoulder. After careful examination, my friend pronounced the stranger to be free from injury. The other coolly inquired, what he was to pay? The Surgeon, somewhat piqued, answered, "Nothing," and walked away. It came to his knowledge, soon afterwards, that this person related the circumstance of his having for once met with *an honest Surgeon*, who declined taking a fee when he found there was no work to be performed! Without referring to the study and expense the Practitioner had been put to ere he could acquire the knowledge requisite to enable him to pronounce an opinion of a nature to set the fellow's mind at ease, I shall be uncharitable enough to suppose, that such a narrow-minded being would have been the very person to have brought an action for *mala praxis*, had he suffered inconvenience from an erroneous opinion.'

In our Number for December, p. 521, we gave, from this part of the *Appendix*, Dr. Smith's observations on the case of Donellan, which has continued to the present day to excite so much interest. The following paragraph, in continuation of that extract, contains some remarks in vindication of the pro-

priety of viewing opinions according to their intrinsic value, and not according to the eminence and reputation of the person uttering them :—

'I have not entered upon this, nearly appalling, undertaking, unaware of the charge I may incur of temerity, if not of something worse ; and of the probable consequences which those who swear by the name of HUNTER may stir themselves to inflict upon me. There are not wanting orators, both individual and congregated, who are proud to ingulf all personal and social distinction in that overwhelming appellation. A name thus rendered *perennius ære*, so slim an individual as myself could not possibly deface to the extent even of a superficial scratch, were he so inclined—which, in sober veracity, is the farthest thing from my thoughts. With those who may feel disposed to prate about illiberality, presumption, disturbing the fame of the departed, &c., I have to plead in vindication of an unaffected desire to maintain truth, should the cost even be chargeable to a great name, (which, by the way, can always better afford it than a small one,)—*first*, the claims of truth, which I have been taught to consider paramount to those of all names whatever ; *secondly*, the notoriety of the slander that has so long been current against men as honest as John Hunter, probably, and against medical testimony at large ; *thirdly*, the impossibility, on my part, of having breathed a syllable on the subject during Mr. Hunter's career ; and *lastly*, a disposition to admire and commend the illustrious individual in question, as strong as should be indulged, in a mind somewhat impressed with a respect for philosophy, but by no means incapable of entertaining admiration for philosophers.'

The *second* part of the *Appendix* admits not of analysis. It consists of a number of cases, medical depositions, and examinations, calculated to serve as landmarks or beacons to the medical witness, with the occasional commentary of the author. These are altogether so curious and interesting, that we will not give the preference to any by a selection, and the number is too great to admit even of a simple enumeration of them all. The reader will be both amused and instructed by perusing them, and for that purpose we refer him to the volume itself.

We cannot take leave of the author on this occasion without expressing our obligations to him for the zeal and ability with which he has prosecuted and advanced the study of public medicine in this country. The observations and researches which he has embodied in this work will greatly assist medical men in their preparations with a view of appearing as witnesses in courts of justice or of inquiry ; and no one,

in our opinion, should think of passing through such an ordeal without having attentively pursued them.*

MONTHLY SUMMARY

OF PRACTICAL MEDICINE.

I. ANATOMY AND PHYSIOLOGY.

An Exposition of the Natural System of the Nerves of the Human Body. By CHARLES BELL.

WE have already given some account of Mr. Bell's views respecting the functions of certain parts of the cerebro-spinal system of nerves. To this account we refer our readers. We may, however, remind them that he confined himself, in the papers which appeared in the Philosophical Transactions, to the examination of the anatomy and functions of those nerves which supply the muscles of respiration. He subsequently examined the uses of the nerves of the orbit. From these papers, we were of opinion that Mr. Bell had fully established the fact that the nerves which supply the muscles of respiration and the parts associated with them in function constitute a distinct order of nerves. Although this fact was evident from an attentive perusal of the the details of Mr. Bell's researches, yet were these details given in a manner which was deficient in perspicuity and method; and the consequence is, that, notwithstanding Mr. Shaw's illustrations of them in the Journal of Science and the Arts, and in the Medical and Chirurgical Transactions, and in the Medical and Physical Journal, and notwithstanding the opposition which was offered by Mr. Mayo, they have not yet met with the attention which they deserve. Of this neglect Mr. Bell has some reason to complain; but we think he is himself chiefly to blame.

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* We may do the author the justice, which he has neglected to do himself, of alluding to the circumstance of the present volume having been written in intervals of ease, occasionally experienced during a long, and what we have hitherto found, in his case, to be an almost irremediable indisposition. But it is to be expected, that relaxation from the severer studies in which he has been engaged, at the same time with the adoption of medical means, which were unavailing whilst his mind was intent upon matters the prosecution of which were calculated to prolong existing bodily derangement, will restore a member of the Profession, who has contributed to its science, to that enjoyment of life which he deserves.

The work now before us consists of those papers which have already appeared in the Philosophical Transactions, with the addition of some illustrative matter, and an introductory chapter containing 'an exposition of the natural system of the nerves of the human body.' This chapter is the most interesting part of the book. But why does Mr. Bell apply the term 'natural system of nerves' to that part of the nervous structures which has been much better denominated the cerebro-spinal system of nerves? It is by no means clear what he means by the term he here uses; for is not every part of the nervous system 'natural?'

Mr. Bell commences his 'exposition of the natural system of nerves' by enumerating, in these terms, four general propositions; on each of which we beg leave to add a few remarks.

"In the view which I have taken of the nerves of the human body, there are, besides the nerves of vision, smell, and hearing, four systems combined into a whole. Nerves entirely different in function extend through the frame; those of sensation; those of voluntary motion; those of respiratory motion; and, lastly, nerves which, from their being deficient in the qualities that distinguish the three others, seem to unite the body into a whole, in the performance of nutrition, growth and decay, and whatever is directly necessary to animal existence.'

1st and 2d Propositions.—Mr. Bell here states, in a word, what he endeavours to show at greater length subsequently, that the nerves of voluntary motion are distinct from those of sensation. He adduces an account of the progress of his views with respect to this matter, and contends that, although the proposition was afterwards illustrated by Magendie, he had before both stated and taught the fact, that the nerves of voluntary motion and sensation are distinct in themselves and in their origins. We readily allow, that whatever difference may exist between this order of nerves, as respects their individual fibriles, their origins from different columns of the spinal chord, or the extent and limitation of their functions, was first seen by Mr. Bell. Therefore he ought not, in justice, to be deprived of the honour. But both he and Magendie have contended for a difference—amounting to a perfect limitation of function to each—which we are inclined to think does not exist. For our parts, we require more complete evidence that it does exist before we admit it.

3d Prop—Mr. Bell next implies that the nerves of respiration form a third order of nerves, which he has termed the superadded or respiratory, and infers that they are distinct from other nerves, because their origins in the medulla oblongata

are both distinct and different from the foregoing orders, viz. those of voluntary motion and sensation; because they are not accompanied with nerves of sensation, as the first-mentioned order is; and because they do not bestow the faculty of feeling or sensibility on the parts which they supply. This view is one which Mr. Bell has had the honour of first pointing out fully and illustrating, although neither clearly nor methodically, yet we think, satisfactorily.

We now come to the fourth and last proposition contained in the paragraph quoted above. Mr. B. here states—and be it recollected that the proposition, as he couches it, conveys admissions which are not to be met with in his former writings—that there are 'nerves, which, from their being deficient in the qualities that distinguish the three others, seem to unite the body into a whole, in the performance of the functions of nutrition, growth, and decay, and whatever is directly necesary to animal existence.' It is true that these nerves, to which he here alludes—the sympathetic nerves—are not subservient to the faculty of voluntary motion; but they are subservient to involuntary and vital motions, if they be not the chief and efficient agents of these motions. Again, they possess an acute sensibility, and one which most intimately interests the vital actions of the animal, whenever they are inordinately or morbidly excited, although their sensibility is not awakened by slight causes, or by those which readily affect this property in the cerebrospinal class of nerves. Here, therefore, Mr. Bell is deficient, not only in precision, where he ought to be most precise, but also in accuracy, where he ought to have been most accurate. The last member of the sentence now quoted also admits, for the first time, that he has made the admission, in his writings, of certain facts which we can prove ourselves to have been the first to have been established, notwithstanding all that Winslow, Johnstone, Richerand, and Bichat, have said respecting the anatomy of the nerves to which these facts relate. But what Mr. Bell admits, at this place, he afterwards retracts in the following sentence, where he expresses his ignorance of the functions of a system of nerves, of the properties and faculties of which he had given a brief but confident opinion. 'The sixth nerve,' he observes, 'stands connected with another system of nerves altogether; I mean the system hitherto called the sympathetic, or sometimes the ganglionic system of nerves; and of this system we know so little, that it cannot be matter of surpise if we reason ignorantly of the connexion of the sixth with it.' Conformably with this opinion, Mr. Bell says nothing respecting this

system of nerves. The whole scope and intention of the work is to illustrate analytically the three previous propositions contained in the paragraph which we quoted. To go over these illustrations, would be to review topics which have already come before us. We therefore dismiss the volume ;—but we do so with the most cordial recommendation of it to our readers, and with sincere thanks to Mr. Bell for the services he has rendered anatomical science, by the details of the researches which it contains. At parting, however, we have a few words of advice to offer to Mr. Bell. We give this advice with a real esteem for him, and with the conviction, that were he to adopt it in his future writings, his reputation would at least, not be the loser by the adoption.

An attentive reader of the work before us will readily perceive that Mr. Bell should study a more logical and clear method of exposing his views than he has adopted. His language, his illustrations, and his distinctions, should be much more appropriate and precise ; and much less metaphorical than they frequently are ; and above all, he should endeavour to avoid that diffuseness into which he constantly lapses. These faults are serious ones when they are met with in the details of important researches into the minute structure of the human body, the functions of its organs, and into the more intricate relations both of these structures and of their actions. Whoever employs himself in the manner Mr. Bell has been employed is truly a philosopher, independently of adventitious considerations, far above which such an individual should consider himself as being placed ; he should therefore never forget to be philosophical in his manner and bearing. We have been led to say this, because we are of opinion that Mr. Bell has suffered from a neglect of those matters which we have now pointed out to his attention. And we consider that, independently of any other consideration, we have a right to give the advice we have now given, from our position as respects medical literature, and the responsibilities imposed on us by the duties of our office.—*Lon. Med. Rep.*

II. SURGERY AND MIDWIFERY.

Remarks on Iritis. By J. A. Robertson, M. D.

In cases of iritis, the vessels of the sclerotic, forming many inosculations, run in straight lines towards the cornea ; they disappear, however, about a line before they reach it,

leaving a whitish zone, nearly of the natural colour of the sclerotic, round the cornea. It is probable that this appearance arises from the vessels passing at this part through the sclerotic, to be ramified on the inflamed iris; whereas, in a case of external ophthalmia, they run direct to the cornea. As soon as this zone appears, the iris is observed to be limited in its motions; the pupil contracted, and slightly drawn upwards and inwards, soon losing its circular form, and becoming thick and puckered. The colour, likewise, of the iris changes; but, from the quantity of *pigmentum nigrum* that enters into its structure, it does not become of so red a colour as other parts of the body do when inflamed, the colour it assumes being what would arise from a mixture of red blood with the natural colour of the iris. In some rare instances, the red colour becomes distinct. Janin relates a case in which the iris resembled a piece of raw flesh; Beer saw it of a blood red colour; and Conradi met with it of the same colour, after a wound of the eye. I have more than once seen spots of a blood-red colour, of the size of a split pea, upon its surface. In iritis, the change of colour commences at the pupillary margin; but, as the disease advances, it extends over the whole surface of the iris; occasionally, even separate vessels can be seen ramified on it. I lately had a case under my care, in which four distinct trunks, which gave off a number of smaller branches, were very evident. This case I showed to my friend Dr. Farquharson, and to several of my pupils.

There is always present, at the commencement of iritis, an increased secretion of tears; but it not unfrequently happens, that the secretion is entirely arrested after the inflammation has become violent. The suppression of the secretion adds much to the severity of the disease, by depriving the eye of that fluid which is necessary to facilitate its motions, and those of the eyelids. The eyelids are not much affected, unless the complaint be conjoined with inflammation of the conjunctiva. The vessels, in iritis, have a peculiar pinky colour, and appear evidently to be seated beneath the conjunctiva. The system is affected in proportion to the violence of the inflammation. When the attack is severe, the pulse becomes rapid and strong; the skin hot and dry; and the countenance anxious and flushed. The patient complains of want of sleep; and sometimes delirium is present. Even from the commencement of iritis, the patient complains of severe pain, confined, at first, to the neighbourhood of the frontal sinuses, and bottom of the orbit, but quickly extending to the temple and back part of the head. The pain, however, is most severe over the

eyebrow; and it is rare to meet with iritis unaccompanied by it. Occasionally, the pain comes on in paroxysms, most commonly beginning towards evening; it reaches its height about midnight, and goes off about four or five in the morning. The patient generally complains of fiery sparks and flashes of light before the eye, which indicate the severity of the disease, and that the retina also is affected. In no case of ophthalmia can we form any just idea of the severity of the inflammation, or of the degree of pain which a patient suffers, from the appearance of the eyeball; for those parts which are deep-seated, and which are most affected by light, become, even when slightly inflamed, peculiarly sensible to its impression.

Iritis may terminate in resolution, in effusion of coagulable lymph, in effusion of a puriform fluid, forming hypopyon, in abscess, or in paralysis of the iris. The pupil, as I have already stated, is contracted, even at the commencement of iritis; but when coagulable lymph is effused, the motions of the iris are completely lost, this membrane remaining firmly dilated and immoveable under every change of light. When the effusion is considerable, it is seen hanging in tufts to the pupillary margin of the iris, or stretching in bands across the pupil, or forming adhesions between the central part of the capsule of the lens and the iris. These adhesions impart to the pupil an irregular shape, and revert the edges of the iris. The effusion varies much in thickness and opacity. Sometimes it is in such quantity, and of such density, that the patient is completely deprived of the sense of light. I am at present attending a patient, with my friend Mr. Wishart, in whose left eye the effusion is so great, that the sight is completely lost. A single vessel is distinctly seen extending across the pupil through the effused lymph. In the right eye also a considerable effusion has occurred; but with this eye, the patient can see to read, although with some difficulty. I have often met with cases, in which the vessels organizing the lymph, could be distinctly traced. In some instances, the effusion is so slight, that the motions of the iris are limited, without any other impediment to sight being produced.

When a puriform fluid is secreted, and effused into the anterior chamber, the disease is termed Hypopyon. When the disease ends in hypopyon, it is known by the remission of pain, and by a streak of yellow round the lower margin of the cornea. If the hypopyon increase to such an extent, that the margin of the pupil is covered with the matter, the pain, which had diminished at the commencement of the effusion, returns

with increased violence, owing to the distension of the eye, which the matter produces. If the inflammation continue, the layers of the cornea become separated, by an effusion of purulent matter between them; and at last this membrane gives way at its middle and weaker part, when a copious discharge of matter takes place, mixed with blood, carrying along with it the lens and its capsule, and frequently the vitreous humour.

Another termination of iritis is, by an abscess, forming in the substance of the iris itself. The situation of the abscess varies; but it occurs most frequently on or near the pulpillary margin, where the effects of the inflammation are always most evident. The inflammatory symptoms, on the formation of the abscess, do not abate, as happens in hypopyon. The abscess of the iris may terminate in two ways—it may either burst, as most frequently happens, and the matter be discharged into the anterior chamber forming hypopyon; or the matter may be absorbed as the disease goes off. In two cases I have seen the iris ulcerate, after the discharge of the matter of the abscess, and leave a communication between the anterior and posterior chambers of the aqueous humour. In one case, under the care of M. Dupuytren of the Hotel Dieu, this happened in two places, leaving the patient as it were with three pupils.

In iritis, the iris is sometimes pushed forward towards the cornea, assuming somewhat of a conical shape, the pupil forming the apex. I have most frequently observed this position of the iris, when the complaint was of some duration. I have also seen the iris in close contract with the cornea (the anterior chamber being thus completely destroyed,) and in some rarer instances adhering to the cornea, generally by its pupillary margin, and by a single point.

When inflammation attacks the iris of one eye, the iris of the other is very apt to become inflamed also. Mr. Wardrop relates a case, in which this was very evident: "The iris of one eye being inflamed in consequence of a punctured wound, soon after which the iris of the other became similarly affected." This case is valuable, as it shows how apt disease is to attack a similar tissue, even when the original complaint was caused by an accident, and not excited by any constitutional affection.

Causes of Iritis.—It is stated by almost every author I have read, as a wonderful fact, that mercury both causes and cures iritis, and indeed that it is its most frequent exciting cause; it would be wonderful, if this were in reality the case.

But it appears to me, that mercury *alone never* causes the disease. It may act as a *predisposing*, but never as an *exciting* cause. The reason why iritis appears to be produced by mercury is, that this mineral, by deranging the natural functions of the system, and by the confinement that is generally necessary during its exhibition, renders the body peculiarly liable to be affected by the impression of *cold*, which appears to me to be the most frequent cause of iritis. I think that I am supported in this opinion by the following facts, viz.

1*st*, The greater number of patients that I have had an opportunity of seeing affected with iritis, while their systems were under the influence of mercury, were conscious of having been exposed to cold shortly before the attack.

2*d*, In those cases, other effects, considered as arising from cold alone, were present, such as an increased discharge from the nares and fauces, rawness of the throat, &c.

3*d*, Inflammatory affections of other organs are frequently caused by exposure to cold, under similar circumstances; as inflammation of the lungs, bronchiæ, and intestines, none of which have ever been considered as produced by mercury alone; and, lastly,

4*thly*, In the greater number of iritic cases that have been under my care, the patients neither were, nor had lately been under the influence of mercury, and nearly all of them attributed the complaint to cold. Besides, if mercury caused iritis, this disease ought to have been of more frequent occurrence some years ago, when ten times as much mercury was used as now a days; but I do not find that this was the case.

During last year, eighteen cases of iritis were under my charge—of this number, only *four* were under the influence of mercury. *Twelve*, had never undergone a mercurial course. In one instance, the disease was evidently produced by a wound of the iris. Of the *four* patients, who were under the influence of mercury, the first left a warm bed to go to the water-closet, which was out of doors. The second, after having had his hair cut, walked to the top of Arthur's Seat, where, overheated with the exertion, he sat down with his hat off. The third, having a slight attack of lumbago (by the recommendation of some friend), poured cold water over his loins. The fourth, was a person engaged in repairing the roads. He lay down on damp grass during his dinner hour. Within the last few weeks, a gentleman put himself under my care, in whom iritis was evidently produced by bathing in the sea, while taking mercury for syphilis; the eye became inflamed the same evening. In these, I continued the use of mer-

cury, even in greater quantity than had been previously exhibited, and in all of them with the most beneficial results. In many of the other cases the exposure to cold was not so evident.

Mr. Travers, who, with other authors, believes that mercury both causes and cures iritis, attempts to explain the MODUS *operandi* in the following words :—"The sound state of a part presents the same distinction to a diseased part as the opposite states of disease to one another; and that as two morbid, but contrary actions, may go on at the same time, and be excited by the same cause, so there is nothing incompatible with the power of mercury to produce that effect in a healthy eye, which it is capable of obviating when excited by another cause." I cannot, however, say that Mr. Travers is very happy in his illustration.

I do not mean to assert that *all* cases of iritis arise from exposure to cold. Iritis may be produced by wounds of the iris, as sometimes happens in performing the different operations on the eye, or from accident. It may arise from external inflammation (more especially when treated by stimulant applications when in the acute stage,) passing into the internal parts of the organ, from syphilis, and frequently even without our being able to assign any probable cause for the disease.

Treatment.—From the symptoms of iritis, it is evident, that, at the commencement of the attack, blood-letting is the first remedy to be employed. The quantity of blood that is to be drawn, must be proportioned to the effects it produces on the system and on the disease; but it may be observed, that one copious bleeding, at the commencement of the disease, has much more effect in arresting its progress than repeated small bleedings. In severe cases, blood ought to be abstracted, if the strength of the patient will admit of it, till syncope, or a state nearly approaching to it, be produced, the bleeding is to be repeated as often as the symptoms require. When the system has been sufficiently lowered, we should have recourse to topical bleeding and blistering. Blisters, when injudiciously applied, do much mischief. If they be used when there is a febrile excitement of the system, they must add to the excitement. When applied, as is frequently the case, too near to the inflamed organ, instead of demolishing, they increase the inflammation. This fact I have had many opportunities of observing. In two cases of amaurosis, the application of blisters over the eyebrows produced ophthalmia, when no trace of this disease had previously existed. In ophthalmia, I consid-

er the back of the ears, and the nape of the neck, the best situation for the application of blisters.

The medicine, however, that is chiefly to be relied on in iritis, is mercury. And to Dr. Farre, who was the first in this country who introduced the use of mercury in iritis, we are indebted for this most important improvement in the treatment of this disease. But the use of this medicine in iritis was known to Beer, Benedict, and other German oculists, long before its introduction into this country. In iritis, the system is to be affected with mercury as rapidly as possible; for this purpose, in severe cases, I frequently order two mercurial pills to be taken every hour, combined with opium, if they affect the bowels with griping or purging. The supra-orbital region is to be well rubbed twice a day with mercurial ointment, mixed with powdered opium. The relief from pain, which the patient often experiences from the latter application, is quite astonishing. As soon as the system becomes affected with mercury, the patient experiences a very considerable abatement of the pain and feeling of fulness and distension of the eye. The sight becomes clearer, and the irregular and contracted state of the pupil and the effused lymph begin to disappear. The redness of the external parts diminishes, and the iris assumes its natural colour. These effects are almost invariable; indeed, I do not remember a single case, in which the pain was not relieved as soon as the system was affected. Last winter, I was requested by my friend, Dr. Mackintosh, to visit a gentleman, surgeon to the —— regiment, who laboured under iritis. Blood-letting had been carried to a considerable length before I saw him, without any marked benefit being obtained; but so great was the relief he experienced from the use of mercury, that he informed me, that, notwithstanding his objections to the medicine, he was confident it was the mercury alone which saved his eye; and I fully believe, that if mercury had not been used, he would, in all probability, have lost his sight. Indeed, I have seen many eyes lost from this disease, which, I think, might have been saved, if mercury had been employed early in the disease, and carried to a sufficient extent.

When lymph has been effused, mercury is absolutely indispensable. It is the only remedy with which we are yet acquainted that can prove serviceable—perhaps iodine might be used with advantage.

The extract of belladonna, or hyoscyamus, when used early in the disease, not unfrequently entirely prevent the irregular contraction of the pupil. They may be besmeared in

considerable quantity over the eyebrow, or be made into a small plaster and applied to the temple. In the course of a few hours, occasionally much sooner, and at other times not till after a long period, they begin to dilate the pupil. When the effect is but slight, a strong solution of either of these substances may be dropped between the eyelids every second or third hour. When no effusion has taken place, the pupil will be regularly dilated; but when there are adhesions between the iris and other parts, the dilatation will, of course, be merely partial. It is often necessary, when lymph has been effused, to continue their application for some length of time after the other remedies had been discontinued, in order to secure the future regularity and natural functions of the iris.

As the extracts of belladonna and hyoscyamus are apt to lose their powers, a fresh application should be made daily. When the inflammation is severe, their effects on the iris are scarcely perceptible; they will, however, prevent the pupil becoming still more contracted; but in proportion as the inflammation is subdued by other means, the advantage of their application becomes more apparent. It is on this account that hyoscyamus and belladonna have been recommended by some practitioners in this country, and espeeially by Barratta in Italy, as a powerful remedy in iritis. They say that, as soon as their effects on the pupil are produced, the pain and other symptoms disappear; but the truth is, that they merely indicate the cessation or diminution of the inflammation, without contributing in themselves to this desirable end. To conclude, the chief diagnostic marks of iritis are, the change of colour of the iris; the irregularity and puckering of its pupillary margin; the limited motions of the iris; the effusion of lymph; the iris drawn to one side, and appearing to be pushed forward towards the cornea; a general cloudiness of the anterior chamber; the blood-vessels of the conjunctiva running in straight lines towards the cornea, but stopping when within about a line of it, and leaving a white circle round the cornea; the peculiar pinky colour and situation of the vessels under the conjunctiva; the pain being almost always most severe over the eyebrow, and sometimes occurring in paroxysms.

The treatment to be pursued is, the free use of the lancet; the rapidly affecting the system with mercury; the dilating of the pupil; the rubbing the temple with ung. hydrarg. cum opio; and the internal exhibition of opium to procure sleep, and to prevent the mercury acting on the bowels. Topical

bleeding, blisters, purgatives, and other auxiliaries, are, of course, to be brought into use.—*Edinburgh Med. and Surg. Journal.*

M. Marc's *Case of crying of the Fœtus in Utero.*

M. Marc lately read, to the Royal Academy of Medicine, the case of a woman, twenty-seven years of age, who had arrived at her full period of gestation, but in whom the pelvis was deformed. At the time the accoucheur was called to assist her delivery, the waters had been discharged twelve hours. He ascertained, by examination, that the head was in its natural position; the mouth of the uterus was dilated to the extent of two inches. The extreme narrowness of the passage obliged him to turn the child, when the trunk and limbs were expelled from the womb, but the head still continued fixed above the narrow pelvis, and in the cavity of the uterus. As soon, however, as he endeavoured to draw down the head, the child cried so powerfully as to be heard by the assistants, and the head still continued fixed; neither could it be perceived at the external orifice. After a short period, he renewed his endeavours to remove it a second time; the child again cried, but more faintly; also a third time, but the cry was still more feeble; and lastly, when the child was brought away, it showed but very slight signs of life, and soon expired.—*Archives de Med. Generales.*

M. Delpech *on the best Mode of Lithotomy.*

For more than four years, in the public lectures on pathology and the practice of surgery which I have given at Paris, I have furnished an analysis of the description which Celsus has bequeathed us, of the operation for stone, and such as was performed in his time. I have shown that the author's Latin has not been understood, and that the operation which he describes ought to precede every other which has been described by modern authors, even to the present day.

Celsus expresses himself in these words: "Juxta anum incidi cutis plaga lunata, usque ad cervicem vesicæ debet, cornibus ad coxas spectantibus paululum." Such is the direction given respecting the section of the external parts. They

have thought to find in these terms the idea of a semilunar incision, the convexity of which would be turned towards the anus, and the concavity towards the raphe and scrotum; but it is impossible to reconcile this idea with the direction contained in the words, "cornibus ad coxas spectantibus paululum." In the attitude which Celsus gives the patient, the hips are not apparent but towards the back part; and it is to this side that the extremities of the crescent, which the incision ought to describe, are to be directed. Then they are really ad coxas spectantibus paululum. They should have a direction altogether opposite to this, if they were described from before. It is necessary, then, to understand, to translate the phrase of Celsus in the following manner: "In front of the anus a semilunar incision ought to be performed, which penetrates even to the neck of the bladder, and which embraces the anterior part of the circumference of the anus itself, and so that the extremities of this incision may be a little turned towards the hips." This latter restriction, which is literally contained in the passage of Celsus, induces one to think that the curve of the semilunar incision ought not exactly to conform to the curve of the anus; that is to say, that it ought not to form the segment of a circle described around the anus, and of which the anus would be the centre; but the segment of a circle, the central point of which should be placed considerably behind the anus. By this contrivance the centre of the curve would be found to approach nearer to the anus than its extremities.

Celsus pursues the subject thus: 'Deinde ea partequa strictior imo plaga est, etiamnum sub cute altera transversa plaga facienda est, qua, cervix aperiatur." It is impossible to suppose that this wound was made much in front of the former. If it had been done thus, the upper part of the neck of the bladder and the anterior angle of the prostate might have been reached by a transverse incision, which would have been done either to a very little extent, or would have separated entirely the neck of the bladder and the canal of the urethra. Yet the author adds, relatively to the deep incision which ought to be performed, "donec urinæ iter pateat sic, ut plaga paulo major quam calculus sit." These latter directions it would have been impossible to follow, if the external incision had been turned forward.

Certainly at the time of Celsus, anatomy was not very much cultivated, yet enough was known to enable them to make an incision into the neck of the bladder sufficiently large to extract any calculus. That part of the operation is next

described in which the stone is brought to the fore part of the bladder, and held there by the finger, previously introduced into the rectum, and it ought also to raise the base of the prostate gland, the vesiculæ seminales, and the vasa deferentia; they then made a transverse incision into the neck of the bladder, of a sufficient size to admit of the extraction of a very large stone. Such was, without doubt, the operation for stone among the Romans, and it is clear that its effects are attributable to the want of sufficient anatomical knowledge; they knew the form, but they were ignorant of the intimate structure of the parts. If Celsus had made his internal or second incision like his external one, and had used a more precise guide to the surface of the stone than mere feeling of it, his operation would have approached very near to the perfection of the modern operations. Such is the doctrine which I taught at Paris, a long time ago, and I can appeal to the evidence of 150 students who attended my lectures. In my course of clinical lectures at Montpellier, twelve years ago, and on all occasions when I have had the opportunity, I have introduced the same ideas; and I have insisted on them with much more force since the performance of the recto-vesical operation for the stone.—*Revue Medicale.*

Mr. Robertson's *Case of Fracture within the Capsular Ligament.*

On the 25th of June, 1822, William Darwin, aged sixty-two, a tall athletic convict, of a sanguine temperament, fell, with a very inconsiderable violence, across a piece of timber in the Dock-yard, his left hip coming in contact with the wood. On rising, he felt an acute pain in the region of the acetabulum, but no other inconvenience, for he walked on board to exhibit himself to the surgery-man.

From finding him *ranked up* with the sick of the hulk on my morning visit of the 26th, from his walking on board, and from his own account of the accident, I did not suspect any serious injury of the joint, and treated the case as one of concussion. On the 29th, however, he complained of a very sudden and very agonizing accession of pain, which induced me to subject him to a more critical examination. No evident alteration in the size of either hip could be discerned, but a shortening of the limb was conspicuous, which was rendered more evident by making him stand on the sound limb; extension removed

this difference, but on being freed from restraint it again assumed its morbid shape; the knee and foot were everted, and rotation greatly increased his pain.

I removed him to the hospital as a case of fracture within the capsule, but continued attention for a period of six months to position (chiefly with the view of restraining the motion of the pelvis, and of securing the limb,) made no other alteration in the symptoms than a gradual diminution of pain. A pair of crutches were given him, he was placed on the invalid list, and remained so till the 26th of December, when he died from a general dropsy.

On dissection, the injury proved a transverse fracture of the head of the femur, within the capsular ligament. No species of union had taken place. The upper portion of the fractured bone was retained in situ by the sound ligament; tolerably smooth on its surface, but without any ossific deposit. The lower portion very irregular, with several detached pieces of bone adhering to the insertion of the capsular ligament. Between the acetabulum and the portion of bone retained in situ by the ligament were several small, oval shaped, loose, cartilaginous substances, apparently fragments of bone. The capsular ligament was partially lacerated, in a line above the trochanter major, and greatly thickened in its insertions.—*Anderson's Quarterly Journal.*

M. Scarpa *on Pregnancy, accompanied with Ascites.*

The memoir on this subject, by the 'father of Italian surgery,' commences with some general remarks on the collection of water within the uterus, and in the abdomen external to the uterus. Excessive œdema of the lower extremities, enumerated among the most troublesome accompaniments of these affections, is not, we think, a very common one, although it is curious that it very often exists with a smaller degree of abdominal distension. When the dropsical accumulation occurring during pregnancy is external to the uterus, the affection is much more serious than when it merely consists of an unusual abundance of the *liquor amnii*, and requires surgical aid. An extreme case of this kind is given at some length: there was almost insupportable dyspnœa, frequent faintings, anasarca of the lower extremities, inability to lie down, and nearly a total want of sleep. In this case, Scarpa performed the operation of paracentesis abdominis in the left hypochon-

driac region, the fluctuation being much more distinct in that part of the abdomen than in any other.* Between twenty-five and thirty pounds of water were drawn off with much relief: labour came on the next day, and the woman was delivered of twins of six months, neither of which survived many minutes. Scarpa remarks, that the size and position of the gravid uterus at the sixth month, and the consequent situation of the intestines at that period, (*as illustrated by Hunter's plates of the gravid uterus,*) show that the aqueous collection must take place in the hypochondriac regions, a circumstance which lessens the apparent danger of performing paracentesis there. The size of the spleen being less than that of the liver, the collection will be greater in the left hypochondrium than in the right, so that there is no risk of injuring either the uterus or the intestines. An opportunity occurred to Dr. Cruch, surgeon to the hospital at Pavia, of verifying this fact, by examination after death of a patient who had been the subject of the operation, and who died in childbed a few days afterwards.

At the same time, Scarpa does not consider puncture of the uterus so dangerous as some other writers, although he observes, it cannot be necessary when the ascites is external to the uterus, and may probably be dispensed with when both kinds of accumulation are combined in the same patient; for after the evacuation of the abdominal collection the uterus may be excited, by sympathy, to expel that which it contains also; or, the prompt performance of paracentesis abdominis

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*A nearly similar case occurred to us a few years since. A lady, under thirty years of age, residing in the vicinity of Vauxhall, had been dropsical for several years, but became pregnant soon after the dropsical disease was removed. As she advanced in pregnancy the dropsy returned, and her state became so distressing that we repeatedly recommended the fluid to be drawn off. This, however, she refused; but, owing to great attention, she reached the full period of utero gestation, and was delivered of a healthy, full-grown child. The medical means adopted soon after her delivery procured a most profuse secretion of urine. She suckled her child, and remained free from any dropsical effusion until after it was weaned, when the dropsy returned, and became more general, and complicated with hydrothorax. Blood-letting, a course of mercury, diuretics, and saline deobstruents, &c continued for a considerable time,—means which were all resorted to in her previous attacks with great benefit,—succeeded in procuring permanent relief. The continued use of the saline deobstruents and aperients, for a long time after ptyalism had been produced, at last brought away motions, which were described by the patient as being of a 'pitchy blackness.' These remedies were continued until the stools became natural. Three years have now elapsed without any interruption of her health. She has not again become pregnant. She has had only two children.

may excite the absorbents of the lower abdomen to increased action, as well as increase the secretion of urine.

Of course, one of the most important points in these cases is, to be well assured of the state of things before proceeding to the operation; and we shall therefore give the diagnosis in the words of the author himself.

"As regards the diagnosis of the two forms of dropsy mentioned above, when they exist separately, we are not without sufficient means of distinguishing one from the other. For when the uterus alone is dropsical, the abdomen, even at the fifth month after conception, has a regular form, as at the full period of pregnancy. If there is any motion of the fœtus, it is irregular and very feeble: the patient has no particular thirst; and when the abdomen is struck in any part, there is only a deep and obscure undulation. It is indeed surprising that the dropsical-gravid uterus, when it does not exceed the size of the uterus at the full period, should threaten suffocation, although pregnant women, even when approaching the period of delivery, are not exposed to this danger. But our surprise ceases when we consider, that, in the ordinary circumstances of pregnancy, the distension of the uterus takes place by almost insensible degrees, and the peritoneum, the abdominal muscles, and the integuments, accurately and gradually conform to this distension; the result of which is, that, about the fifth month, the gravid uterus departing by little and little, from the perpendicular line of the body, forwards, gradually ceases to push the abdominal viscera upwards towards the diaphragm. But as the dropsical-gravid uterus, about the fifth month, rapidly acquires the volume of the gravid uterus at the full period, whilst the peritoneal sac, the abdominal muscles, and the integuments, remain rigid and unyielding, it is retained in the longitudinal axis of the body of the woman, and so continues to compress the abdominal viscera from below, upwards towards the diaphragm, and to diminish the cavity which contains the organs of respiration.

"The symptoms of *acute* ascites associated with pregnancy are essentially different from the preceding. The regular shape of the fundus and body of the gravid uterus cannot, under these circumstances, be distinguished by the touch, chiefly on account of the enormous distension and prominence of the hypochondria, the consequence of the quantity of water interposed between the fundus and posterior parietes of the uterus, and of the pushing up of the abdominal viscera towards the diaphragm. The urine is scanty and brick-coloured; the thirst continual; fluctuation is obscurely perceived on percus-

sion of the abdomen in the hypogastric region and the flanks, but sufficiently, distinctly, and sensibly in the hypochondria, and strongly and *vibratorily* in the left hypochondrium, between the upper portion of the external side of the rectus muscle and the border of the false ribs: it is consequently in this place that we may in these cases perform paracentesis of the abdomen, without injuring the fundus or body of the uterus, or any of the abdominal viscera which surround it; as has been in the above instance shown in our surgical practice."

The operation seems in all the cases to have been followed in a short time, at most in a few days, by premature labour; but yet to have been fully justified by the dyspnœa, the pains, and the impending suffocation, to all which it brought immediate and complete relief.

We have collected the materials for this notice from the first volume of a Miscellany of Surgery, published by a society of Surgeons at Geneva: containing papers selected from the publications of the Surgeons of other countries. More than half of the articles in this first number are from eminent Surgeons of our own conntry; a circumstance equally flattering to us, and honourable to the Genevese conductors. The central situation of Geneva renders it, as the editors remark, very favourable for the compilation of a work of such a character; and as they seem chiefly to collect together papers recommended by some invention or novelty, and do not engage to issue the future volumes of the work at any stated periods, there can be little doubt of their being enabled to render every volume valuable.—*London Medical Repository.*

III. PATHOLOGY AND THEREPEUTICS.

Professor Cayol *on Continued Fevers.*

The points relating to continued fevers, on which Professor Cayol endeavours to fix the attention of his clinical pupils, are the following:—

"1. It is incontestable that the progress of pathological anatomy has limited the number of idiophatic fevers (*fievres essentielles;*) and that many diseases which used to be ranged under that class belong to symptomatic fevers; for example, many cerebral, and some enteric phlegmasiæ. But the existence of idiophatic fevers, in the proper sense of that term, has only been better demonstrated by our improved acquaintance with the symptoms of local affections; and they have

peculiar and characteristic features which do not allow of their being confounded with the symptomatic. The local affections observed in the progress of them bear no relation, in intensity, to the general symptoms, and, except in complicated cases, are rather sanguineous or serous congestions than true phlegmasiæ; and, moreover, do not exist antecedently to the fever, but follow it, and most frequently only occur towards the end of it; from which it may strictly be inferred that they are not causes, but effects. The phenomena of idiophatic fevers are better explained by those of eruptive, nervous, or pestilential fevers, than by such as accompany local inflammations.

"2. In the attempts which have been made of late years to explain all fevers by inflammation of the gastro-intestinal mucous membrane, effects have frequently been taken for causes. The redness of the tongue which has been so much insisted upon, is, as well as the heat of the skin, one of the primitive phenomena of fever. Whenever there is an accelerated circulation and respiration from any external or internal, physical or moral cause, that is to say, whenever there is fever, we observe nearly at the same time heat, with more or less dryness of skin, and this febrile heat is connected with an analogous condition not only of the gastro-intestinal mucous membrane, but of all the mucous membranes. Whenever the skin is hot and dry, the tongue is red. At the same time that there is redness of tongue, thirst, anorexia, and tenderness of the epigastrium, there is also heat and uneasiness of the chest, in the air-passages; sensibility of the conjunctivæ, with or without redness; dryness of the pituitary membrane; high-coloured urine; lassitude; pains in the loins, &c.; and all these phenomena evidently depend on the same cause, namely, on the movement of expansion and turgescence which characterises the first stage of fevers, and the immediate effect of which is to propel in greater quantity into the capillary net-work of the skin and mucous membranes. The fever is not more a gastro-enteric fever than it is a cystic, or a nephritic, or a bronchitic fever.

"3. Whilst the skin and the mucous membranes, in consequence of this febrile movement, are the seat of a powerful sanguineous congestion, by which also their sensibility is increased, the slightest causes of irritation may excite inflammation in them. Hence arises the necessity for a mild and regulated temperature, and strict attention to diet, during the first or turgescent stage of fevers. If, instead of this, irritating matters are taken into the stomach, they easily determine an

actual inflammation of the gastro-intestinal mucous membrane, which inflammation may become so intense as to produce a symptomatic fever, and thus modify the original disease. Such, according to M. Cayol, is the origin of most of the examples of gastritis, or of gastro-enteritis, which are met with in the hospitals. It is well-known that the common people almost always administer hot wine or other stimulating drinks from the very beginning of fevers; sometimes an abundant perspiration is thus excited, which cuts short the complaint; but much more frequently a certain degree of inflammation is raised up in a mucous membrane of the first passages.

"When a patient comes to the *clinique* with continued fever and symptoms of gastric or intestinal irritation, M. Cayol questions him concerning the regimen he has observed since the accession of the malady, and he generally discovers that the fever preceded the local affection, and that the latter is the result of direct excitement. It is in these cases only, which are very common in the hospitals, that this Professor orders leeches to the anus or to the epigastrium.

"When the patients, on the contrary, have confined themselves, from the invasion of the fever, to a moderate diet and in a moderate temperature, the redness of the tongue is always observed to bear a relation to the heat of the skin; but this redness, although attended with thirst, and sometimes with a slight tenderness of abdomen, is not accompanied with the other symptoms of inflammation. It is observed to decrease together with the heat of the skin, without any recourse being had to leeches; and in those cases where general symptoms of plethora exist, general bleeding appears preferable to that from the capillaries.

"For the same reason that the ingestion of stimulating drinks easily produces gastritis in the first stage of fevers, the inhaling of cold air or irritating vapour readily excites inflammation of the mucous membrane of the air-passages; and this common complication of idiophatic fevers is generally more troublesome than gastric or intestinal irritation. There is this peculiarity when catarrh thus occurs in the course of idiopathic fever that it does not ordinarily discover itself by cough, but only by an acceleration and oppression of the respiration, and by the mucous rattle (*rale*) conveyed by auscultation; without which method of exploration, we should in most cases be unable to recognise this troublesome complication of fevers. M. Cayol generally combats it successfully by the application of the cupping-glasses and scarificators to the sides of the chest,

neor the origins of the serratus magnus; and he occasionally pursues this plan in simple sanguineous congestion of the lungs.

"Continued fevers of the existing character generally commence by a state of sanguineous turgescence, which requires the administration of diluting drinks and sometimes calls for bleeding. As regards the local affection which accompanies them, if they did not precede the fever, and do not exhibit an inflammatory character, M. Cayol pays very little attention to them, and refrains from pursuing them with local bleedings, which, by impoverishing the capillary system, delay the crises, and prolong the period of convalescence. If the head continues disturbed when there is no longer any antiphlogistic indication, he applies blisters to the legs; and he only has recourse to blisters behind the neck when the symptoms of cerebral congestion remain a few days afterwards.

"In this second stage of fever, if the mucous rattle remains, he prescribes the decoction of polygala seneka with advantage. At a later period, if petechiæ make their appearance, or eschars on the sacrum, or the blistered surfaces put on a putrescent appearance, (the suppuration being excessive, and ichorous or sanious, with sharp pains,) quinquina is decidedly indicated; and M. Cayol gives a dram of the dried extract in a mucilaginous or acidulated draught for a dose, ordering the blistered parts to be washed several times a day with a strong decoction of quinquina, and to be dressed with opiated cerate." —*London Medical Repository.*

Case of diseased Spinal Marrow.

Madame Marten Charlet, a widow, thirty-six years of age, a native of Paris, of ordinary stature, of a cold, nervous temperament, was ill of what was considered as a nervous complaint, when she was about twenty-seven years old; since which time until she was thirty-four, she had enjoyed good health. At this time, however, she was obliged to work at her needle for subsistence, in consequence of which she generally sat up very late at night. She lived in a low damp situation, and frequently felt the cold (to use her own expression) strike to her kidneys. A short time afterwards she was seized with a severe pain in the right arm, to remove which she made use of a great variety of means; but it still continued, and she could only find relief from opiates. The pain soon

after became accompanied with head-ache; the menses had ceased. A month afterwards she came to the hospital. The pains in the arm had increased, and the power of motion had gradually become lost. Convulsions had now attacked the lower extremities, followed by complete paralysis. When she arrived, the patient appeared of a regular and natural figure; her mental faculties perfectly sound. She did not complain of much pain; neither did she suffer much in the left arm, although it was motionless. The motions of the right, although difficult, could, however, be performed. This last had now become the seat of great pain. She had but little appetite, and some thirst. The tongue was slightly red; her respiration easy, but weak; her pulse sometimes frequent and full, but in general regular and small. She had a large and deep slough on the sacrum; the lower limbs were œdematous; the lower part of the chest, and the organs lower down which are subject to the will, had the faculty of feeling and motion entire; at the same time, the patient complained of darting twitches through the belly, which gave the sensation of extreme cold. The urine and fæces passed off involuntarily.

Two blisters were applied to the vertebral column, at the same time that emollient drinks were ordered; she was also ordered a generous diet. The slough on the sacrum was dressed daily, at first with a plaster and lint, afterwards with pledgets, spread with styrax. In this way she continued gradually and almost insensibly sinking, and without any remarkable new symptom, until the 2d of December, when the slough had destroyed all the integuments covering the sacrum, and also part of the haunches; but without having at any time caused the patient much pain. The power of motion in the right arm was insensibly lost. She again complained of severe pain in the arm, of a pricking or pinching nature, and so severe as to make her cry out. The weakness increased very perceptibly, and a feverish state came on; her voice almost failed, her eyes gradually closed; and she died, after having been two months and a half in the hospital, without much agitation or apparent agony.

Inspection.—The lower limbs were œdematous, and there was nothing else remarkable in the external parts. In the head, the brain was very sound, and of good consistence.—When the vertebral canal was first looked at, there did not appear to be any mischief; but, as soon as the dura mater was opened, we saw upon the tunica arachnoidea, for full three-quarters of its lower part, a great number of small tuber-

cles (*plaques,*) of a whitish opaque colour, the diameter of which varied from three to four lines; they were more than a quarter of a line in thickness; they were chiefly in the posterior part of the canal, only a few, very small ones remaining in front; the surface opposed to the spinal marrow was rough and irregular, the other was smooth and polished. They did not adhere either to the spinal marrow or pia mater, but seemed suspended in the tunica arachnoidea, which was transparent and quite sound round these tubercles. The medulla spinalis was also sound, but rather more firm than natural; the rest of the membranes were not at all thickened. The posterior origins of the nerves were distinct and natural: the whole of them were not seen,—only those on the posterior part.—The marrow also, cut into in several places, and seen posteriorly, did not show any thing remarkable; but, on lifting it from its canal, we discovered, high up in the dorsal region, a foreign production, which covered the whole of the anterior part of the medullary cord, from the sixth cervical pair of nerves to the third dorsal.

The colour of this substance was a reddish yellow, and it was situated between the spinal marrow and the arachnoid tunic, in such a way as strongly to compress the former, with which it seemed intimately connected. It was impossible to distinguish the proper membrane of the spinal marrow. This substance was flatter and thicker on the left than on the right side: in the first, viz. the left, being rather more than three lines in thickness; whereas, in the second, it did not exceed one half. This last portion on the right side could be turned over towards the left, as far as a sort of line, from which it seemed more directly to derive its origin, and where the roots of the corresponding nerves could not be in the least distinguished. The posterior roots of this side were visible, but those of the right were certainly altered. The anterior fibres were compressed to such a degree, that only a few filaments could be discovered. The medulla spinalis was much flattened by this substance, but more particularly on the left side; the nature of it seemed to be very like that of the cerebrum; its surface was soft and unequal, and having a slight appearance of folds, of a reddish colour; its form irregular and flattish; and indeed it had very much the external appearance of the medulla spinalis, covered with its proper membrane. Its texture was neither fibrous nor cartilaginous; neither was there indication of tubercles or scirrhus. Its substance seemed to be of a fatty nature, in which we could see vessels and cellular membrane; or, in short, it showed the same consistence and characters as

that texture, to which it was connected, and of which it was evidently a continuation.

Both above and below this substance, the medulla spinalis was extremely healthy, and, although cut into in several places, it did not show the least morbid change. The slough on the sacrum was not at all connected with the interior of the vertebral canal.

M. Jolly has taken two separate views of this case, and the morbid parts are preserved in the museum of the Faculte de Medecine.—*Archives generales.*

M. Esquirol *on the Prevalence of Insanity.*

An interesting Memoir has been read in the Section of Medicine in the Royal Academy of Medicine of Paris, by M. Esquirol, in answer to this question :—*Are there more madmen in the present day than there were forty years ago ?*

M. Esquirol, whose experience has, as it is well known, been so considerable, answers this question in the *negative ;* and maintains, that in proportion to the population, the number of maniacal persons has *not* increased. He remarks, that from 1786 to 1792 the whole population of France was agitated by political fanaticism and the exaltation of all the social passions ; yet that in 1792 there were only 1009 lunatics in the Parisian establishments—the same number as in 1786 : and there was no increase observable in the South of France, where the fury of the passions prevailed the most ; as at Lyons, Marseilles, and Nismes. Similar observations are applicable to Spain and Italy. But he adds, that whenever any disease becomes the object of great attention, it comes to be considered as more frequent, in the same manner that the number of deaf and dumb was found to be so unexpectedly great when the Abbe de l'Epee attracted national attention to them. An effect precisely similar appears to have been produced, at least in France, by M. Pinel's Treatise on Mania ; and the general improvement which followed in the treatment of this class of maladies caused a number of individuals to be sent to public establishments who would have been scattered over the country and in obscurity. And thus M. Esquirol concludes that the increased number of lunatics is only apparent. He indulges in some very allowable feelings of complacency on reviewing the improved treatment of the insane in the French establishments. In a report of the state of the

Paris hospitals in 1816, it was stated, that from the 1st of January, 1804, to the 1st of January, 1814, 3943 lunatics of both sexes were admitted, of whom 2149 were sent out cured, that is to say, more than half the number : a result calculated to give some consolation to those families of which any member may unfortunately be the subject of this most dreadful of all calamities.—*Rev. Med.*

M. Hufeland *on the Art of prolonging Life.*

In the commencement, M. Hufeland invades the province of theology, by endeavouring to explain the extraordinary longevity of the antediluvian world ; and he imagines that he has solved the difficulty by adopting the theory of Henseer, that their years were composed of three months only. However this may be, we find, from Abraham downwards, few difficulties of this kind to contend with ; and our own times almost, and our own nation, afford us examples of life protracted to at least an equal degree.

M. Hufeland next enumerates the principal facts that bear upon this question as recorded by the pagan authorities, which he brings down to the present time ; remarking, that but few, if any, instances of longevity are to be met with, throughout the records of history, among princes or potentates ; whereas, among hermits, and those subjected to the most rigorous regimen in every way, a multitude of examples may be found.—Philosophy also appears to have extended the gift of long life to its votaries in all ages, from Plato down to Newton. We are next presented with the histories of Jenkins and Parr, and other long-livers of Denmark, Germany, and France ; and an extended, but not very clear, account of an English humorist, called Nobs, is then given, who is said to have lived to a great age, and whose daily promenades are mentioned at some length. But how the young folks of a certain *town in Canterbury* should be so very much amused with the oddities of an old man, who walked daily to Highgate and back again, we do not readily understand. M. Hufeland does not notice, and perhaps does not believe, the history of the black woman, Louisa Truxo, who is said to have been alive in Jamaica in the year 1780, aged 175 years. But the last example he records is extraordinary, and new to us : it relates to an inhabitant of the vicinity of Berghen, in Norway, who died in 1797, at the age of 160. This man preserved to the last moment the use of

his senses and his understanding. The evening before his death, he assembled all his family about him, and divided his possessions among them. He had been married many times, and his eldest son was 105 years of age, and the youngest nine. In conclusion, our author affirms that the British islands appear to be most favourable to longevity, France and Italy less so. Greece maintains the reputation that it always possessed in this respect; but neither extreme heat nor cold would seem to be favourable to the life of man. Both Germany and Holland contain many old men, but few who attain extreme old age.

The sixth chapter is an attempt to generalise the facts recorded above, and to reduce them to certain rules; but how fatal such attempts generally are, even in the most skilful hands, is shown by our author's sixth aphorism, which begins thus:—"That which contributes most to prolong existence, is a certain uniformity of temperature: this is the reason why countries where the barometer and thermometer are subject to sudden and considerable changes, are never favourable to life;" and yet, in the face of this, we find that England, Scotland, and Ireland, stand pre-eminent in this respect,—a most palpable contradiction! There does not appear, in the remaining aphorisms of this chapter, any thing to excite particular remark, excepting that M. Hufeland notices, and insists upon our keeping in mind, that all those who have attained to a great age have been married. This applies equally to females as to males.—*London Medical and Physical Journal.*

Mr. Iliff's *Case of Poisoning from the Superacetate of Lead.*

Eliza Andford, a girl sixteen years of age, took intentionally, on the 23d of November, at seven A. M. about an ounce of the superacetate of lead, which had been dissolved in water the previous night. A little before eight, she was seized with vomiting and violent pain in the stomach. I was informed of the circumstance at half-past ten, and sent by the messenger some solution of the sulphate of magnesia, directing it to be given frequently until I reached her. At a quarter to eleven I found her suffering violent colicky pain every two or three minutes, and vomiting thick viscid matter, with yellow streaks like the yolk of an egg; some boiled beef, which she had eaten in order to take the taste of the poison from her mouth, was also ejected, moulded in the form of two small sausages. Her

pulse was 102, small, and weak. I gave her, on my arrival, a scruple of the sulphate of zinc, dissolved in warm water. In thirteen minutes she vomited about half a pint of the ingesta. Thin gruel was now got down ; but the stomach not appearing disposed to act, and having fully ascertained from the person who supplied the poison that the quantity was an ounce, I resolved to lose no time in procuring Mr. Read's patent syringe, and in introducing the tube to which it is attached into the stomach, in order to try if by its means I could effectually clear the stomach of its contents. Mr. Read being from home, I was politely offered the use of Mr. Scott's apparatus ; and, with the latter gentleman, and my friend Mr. Mason, whom I met with whilst out, the operation was performed a little before noon. Her pulse was then 120, and her sufferings considerable. The flexible tube of the apparatus passed most readily into the stomach ; and, after adapting the syringe, three or four pints of lukewarm water were injected at intervals. About the first two pints, which evidently contained lead, were thrown out by the action of the stomach at the side of the tube ; the remaining portion was withdrawn by means of the instrument, and the last half pint was clear, but possessed a slight bloody tinge. On withdrawing the tube, two small coagula of blood were found at its extremity. Feeling rather faint, she was laid on the bed : no pain was now evident, except on pressure, when the abdomen appeared generally tender. I now made a solution of four ounces of the sulphate of magnesia in eight pints of thin gruel, and, altering the syringe, threw readily into the bowels about five pints of the mixture. Five minutes after the removal of the pipe, a stool was procured, containing scybala and three pints of fluid.—She afterwards appeared easier. I gave her by the mouth ʒx. of the sulphate of magnesia and thirty drops of tincture of opium, and left her disposed to sleep, with a pulse of 106.

At twenty minutes past two, P. M., I visited the patient again ; she was lying on her back, with her legs fully extended. Since I left she passed two dark fæculent stools, and had felt sick, but nothing more had been vomited up. Pulse 88, soft ; abdomen distended, with slight rigidity of the muscles ; pain on pressure, but the colicky pains less than they have been ; has taken ʒx. more of the sulphate of magnesia in water.

A quarter past six.—Has had three more copious dark stools, and a little sleep ; pulse 92, weak ; abdominal muscles more rigid than before. Ten drams of sulphate of magnesia, with thirty drobs tr. opii, were again given.

Ten, P. M.—Two more stools have been procured ; dosed for a short time, and is, on the whole, better.

24th. Ten, A. M.—Several hours' quiet sleep during the night. Bowels open three times; very little pain ; rigidity of abdominal muscles less ; trifling numbness of extremities, particularly on the left side ; tongue rather brown in the centre, but moist ; pulse 82, soft. She was ordered a mixture with ol. ricini and mucilage, barley-water, and such like.

Seven, P. M.—Pulse 66, soft ; no evacuation ; complains of pain in fore part of the head ; numbness of the left side increased ; the left hand cannot be firmly closed. Tongue white and moist ; pulse in the right side 70, and after repeated trials found quicker than in the left: ordered some ext. colocynth. c. and pilul. hydr. at bed-time.

25th. Half-past twelve.—Had a restless night ; two dark fæculent stools ; numbness less ; slight sickness ; no abdominal pain : pulse 74 ; no deviation in its beat perceptible on either side : tongue white, and moist. From this time her bowels were kept acting ; the numbness gradually subsided, and, in four or five days, she was convalescent.

Before closing this case, I must acknowledge my conviction that the perfect recovery of the patient must chiefly be attributed to the benefit resulting from the use of the syringe ; and I think that this will readily be allowed, when I mention that the portion of fluid first withdrawn contained lead, whereas, in the latter, not a particle of it could be detected. It should not, however, be overlooked that the sulphate of magnesia and the sulphate of zinc, which were given, must have had some considerable share in rendering the superacetate of lead less noxious ; for, as both the former salts decompose the latter, producing a sulphate of lead which is insoluble, and, therefore, precipitated, consequently their use must have been advantageous, viewing only their action in relation to their forming an insoluble and much less hurtful salt. This latter was afterwards removed by the syringe, and carried off by the continued use of the sulphate of magnesia. The girl is now perfectly well ; a circumstance which is the more surprising, when we recollect the time which had elapsed from the swallowing of the poison until any measures were adopted to remove it, and to counteract its effects.—*London Medical Repository.*

IV. MATERIA MEDICA AND PHARMACY.

Facts towards the Chemical History of Mercury.

I. *Of the Oxides of Mercury.*

Some valuable information respecting the oxides and sulphurets of mercury has been published by M. Guibourt, in the Journal de Pharmacie, of the year 1816; but we cannot agree with his conclusion as to the impossibility of obtaining an insulated protoxide, and an insulated protosulphuret, of that metal: at least, if we understand him rightly, he considers those compounds as mixtures of metallic mercury with the peroxide and bisulphuret respectively; and this, because they are so easily resolved by heat, and even by trituration, into running mercury and peroxide, and running mercury and bisulphuret. But we do not reject iodide of nitrogen, or fulminating silver or mercury, from the list of chemical compounds, because slight mechanical means suffice to decompose them.

Calomel boiled in excess of solution of soda, or treated with excess of ammonia, yields a plack powder, which, if carefully dried out of the contact of air, affords, on decomposition, about ninety-six per cent. of mercury, and four of oxygen; or 200 of mercury and *eight* of oxygen; while the red oxide of mercury, a crystalline, permanent, and definite compound, beyond all doubt, affords 200 of mercury and *sixteen* of oxygen. There is, therefore, every reason for adopting the former as a true combination; for we find that it is entirely soluble in, and forms distinct salts with, acids, and that it contains just half the proportion of oxygen existing in the peroxide. It is nevertheless true, that by a gentle heat, by trituration, or by exposure to light, this protoxide throws off a portion of its mercury, whilst the remainder of the metal passes into the state of peroxide.

II. *Of the Sulphurets of Mercury.*

In respect to the sulphurets of mercury, M. Guibourt is of opinion that the protosulphuret is to be considered as a mixture (*un melange*) of cinnabar and metallic mercury, because it is as easily decomposed as the protoxide: nevertheless, he shows that it consists of 200 of mercury and *sixteen* of sulphur, and that the bisulphuret, or cinnabar, is composed of

200 mercury and *thirty-two* sulphur. There seems, therefore, no reason whatever for assuming the protosulphuret to be an indefinite mixture; and, if it be considered, as some would have it, a *compound* of cinnabar and mercury, what is that but a protosulphuret, as proved by its analysis? Respecting the mode of obtaining the protosulphuret, there may, however, be some difference of opinion. It appears to us that the only method by which such a definite compound can be procured, consists in passing sulphuretted hydrogen gas into a very dilute solution of the protonitrate of mercury, or into water through which calomel is diffused: in either case, a perfectly black precipitate is formed, which, when collected upon a filter, and very carefully dried, exhibits no globules of mercury, and which, when analysed, affords results consistent with one proportional of mercury and *one* of sulphur. Like the protoxide, however, it is singularly easy of decomposition. Trituration effects this; so does exposure to the sun's rays; so does a heat of 300°; and, when heated in a glass tube in the flame of a spirit-lamp, mercury distils over, and bisulphuret is sublimed.

The pharmaceutical preparation, called Æthiops mineral, is generally stated to be a mixture of sulphur and black sulphuret of mercury; indeed, it is called, in the latest edition of the London Pharmacopœia, "Hydrargyri, Sulphuretum Nigrum." It has long had a place in the materia medica, through a very useless and inert compound. It is a black powder, prepared by triturating together equal weights of mercury and sulphur, until globules are no longer visible. When properly made, it may be rubbed upon gold, without leaving any mercurial stain upon that metal; hence it appears that the mercury is in chemical combination with the sulphur; a circumstance, indeed, sufficiently evident from the great rise of temperature that ensues when the materials are subjected, in large quantities, to powerful trituration; they then smoke and agglutinate. Fourcroy and several other chemists have regarded this compound as consisting of sulphur and black oxide of mercury; but Prout and others have amply demonstrated the fallacy of such an opinion, without, however, showing the real nature of the substance. It has lately been usual to describe it as a mixture of sulphur and black, or protosulphuret of mercury; and it is stated, in several pharmaceutical works of authority, to be "insoluble in nitric acid, but totally dissolved by a solution of pure potassa." An inquiry into the truth of this assertion, so contrary to

what one would expect *a priori*, has, I think, led to a satisfactory explanation of the nature of Ethiops mineral.

A portion of well-prepared Ethiops mineral was boiled in solution of potassa, until no further action took place; the liquor was then decanted off, and fresh portions of the alkaline solution added; the boiling being repeated as before, until no further action ensued. There remained a black powder, not acted upon by strong solution of potassa, nor by nitric nor muriatic acid. It was collected upon a filter, thoroughly edulcorated, and dried in a very moderate heat, not any time exceeding 212°; it was then of a very dark violet hue; when heated in a glass tube, it sublimed without any evolution of mercury, and became perfect cinnabar. It appears, therefore, that Ethiops mineral is far from being soluble without decomposition in alkaline menstrua: on the contrary, solution of potassa merely abstracts its excess of sulphur, furnishing a liquid sulphuretted hydrosulphuret of potassa, from which the acids throw down sulphur, but which affords no traces of mercury. When, however, moist bisulphuret of mercury, as it is left by the alkaline solution, is boiled in a strong solution of hydrosulphuret of potassa, a minute quantity of it appears to be taken up.

There are some discrepancies in the chemical history of the bisulphuret of mercury or cinnabar, as given in the above-quoted works, which the following facts may, perhaps, tend to clear up.

Cinnabar is not altered (except slightly as to colour, which is somewhat brightened whilst it is moist,) by long-continued boiling in nitric acid; nor is it affected by muriatic acid under similar circumstances. Nitro-muriatic acid instantly attacks it even in the cold, and by boiling converts it into a persulphate of mercury. If the sulphuric acid be precipitated by muriate of baryta, it is found that eighty parts are obtained from 232 of cinnabar, indicating the existence of two proportionals of sulphur to one of mercury, as above stated. Sulphuric acid is partially decomposed when boiled upon cinnabar; sulphurous acid gas is given out, and, upon boiling down to dryness, a white sulphate of mercury is ultimately obtained. The non-action of nitric acid upon cinnabar, considering the facility with which it oxidizes and acidifies its elements, is remarkable; and it deserves notice, that when the black protosulphuret of mercury (obtained by precipitation from the protonitrate by sulphuretted hydrogen,) is boiled with that acid, that it is speedily decomposed and entirely converted into nitrate of mercury, and not a particle of cinnabar is separated,

which probably would be the case if M. Guibourt's view of its composition were correct.

III. *Of the Chlorides of Mercury.*

It is now universally admitted, that calomel and corrosive sublimate are chlorides of mercury; that calomel, or the protochloride, consists of one proportional of mercury = 200, and one of chlorine = 36; and that corrosive sublimate, or the perchloride, consists of one proportional of mercury = 200, and two of chlorine =72: the equivalent or representative number, therefore, of the former, is 236, and of the latter 272.

In some inquiries connected with the preparation of calomel upon the large scale, conducted in the laboratories at Apothecaries' Hall, Mr. Hennell has discovered several curious and important facts respecting the chlorides of mercury more especially in relation to the triple compounds formed by corrosive sublimate with other chlorides. He has ascertained that certain chlorides, which appear to have no action upon calomel at common temperatures, decompose it at a boiling heat, to a greater or less extent, and resolve it into corrosive sublimate and metallic mercury.*

This action he has particularly investigated in respect to common salt and muriate of ammonia, those being the substances usually employed for the purpose of washing calomel, under the idea of freeing it from corrosive sublimate; an effect which they fulfil when employed cold and in dilute solution only. But, when perfectly pure calomel is boiled for a few minutes in a solution of muriate of ammonia or of common

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* Since writing the above, the following note has been received from Mr. Hennell.—

"I had repeatedly noticed a bluish tinge which calomel acquires when washed in a boiling solution of muriate of ammonia, as directed by the London Pharmacopœia, to remove corrosive sublimate. To ascertain the cause, I boiled 100 grains of pure calomel in a solution of muriate of ammonia, containing 100 grains of the salt. The change of colour in a few minutes was very evident. The solution, when tested, contained corrosive sublimate. The boiling was continued with four other portions of muriate of ammonia, 100 grains each; when the calomel was entirely decomposed, forty grains of mercury remained. Sixty grains of white precipitate were obtained from the solutions by carbonate of soda. There was no decomposition of the sal ammoniac. With common salt I obtained the same results,—mercury remaining, and white precipitate being thrown down from the solutions, by liquid ammonia. Common salt is not so active in producing these changes; as *ten* portions of 100 grains each were used, before the decomposition of 100 grains of calomel was complete. Muriate of potass and the earthy muriates have, I have every reason to believe, the same power; but I did not push the experiments as in the case of soda and ammonia."

salt, and a portion of the liquor filtered off and tested, a portion of sublimate is always found in it; and, on boiling for a long time, the whole of the calomel is decomposed, and compounds of sal ammoniac and corrosive sublimate, and of common salt and corrosive sublimate are obtained; an equivalent portion of metallic mercury being at the same time separated.

These facts are peculiarly important in relation to the preparation of colomel, inasmuch as the Pharmacopœia directs the use of a hot solution of muriate of ammonia, with the intention of freeing it from any accidental admixture of corrosive sublimate; and Dr. Henry, in describing the methods of ascertaining the purity of calomel, directs it to be boiled in solution of muriate of ammonia. "When carbonate of potassa," he observes, "is added to the filtered solution, no precipitation will ensue, if the calomel be pure." Several other chemists of eminence have given this is as a criterion by which to recognise the presence of corrosive sublimate in calomel; whereas it appears, from Mr. Hennell's experiments, that the protochloride of mercury is in such cases decomposed, and that perchloride is formed.

The compounds of corrosive sublimate with other chlorides, though noticed by many authors, and more particularly by Dr. Davy, in his paper printed in the Philosophical Transactions for the year 1822, have not hitherto been submitted to analysis, nor examined with much precision. Mr. Hennell has already obtained some interesting results upon this subject, of which we hope to be able to give an account on a future occasion. In examining the mutual action of muriate of ammonia and corrosive sublimate, his attention was naturally directed to the substance usually called *white precipitate*, the "Hydrargyrum præcipitatum album" of the Pharmacopœia: his experiments appear to me to leave little doubt that it consists of one proportional of peroxide of mercury, and one of muriate of ammonia.—*Brand's Journal of Science.*

M. Vauquelin *on the active Principle of Colocynth.*

Colocynth, treated with alcohol, yields the bitter substance much purer than when water is used. The alcoholic solution, evaporated, yields a very brittle substance, of a gold-yellow colour, which, when put into cold water, produces a solution, whilst white opaque filaments remain, which ultimately form a soft, semi-transparent, yellow mass, resembling some resins. If the aqueous solution be heated, it becomes turbid, and there

form, both on its surface and at its bottom, yellow drops, resembling a fused resin; these, when cold, become hard and brittle. The solution, re-heated, is again rendered turbid; and this effect is produced until the whole is evaporated.

It is found, on examination, that the substance remaining undissolved by the water at first, is of the same nature as that dissolved, and may itself be dissolved in abundance of water. It appears that the first portion of water dissolves more than the second or third, from the presence probably of some acid taken up by it. A yellowish-brown extractive matter also appears to be present; for the first solution is much more coloured than the second, and the product of the second solution evaporated appears to be much purer than that of the first. If, by successive evaporations, the resin-like substance be separated, the last, or mother liquor, contains a substance considerably soluble in water, and but slightly troubled by infusion of galls: the turbidness is occasioned probably by the presence of the bitter substance, a portion, as is evident to the taste, remaining.

The bitter resin-like substance is slightly soluble in water; considerably so in alkaline solutions; abundantly precipitated by infusion of galls, but not at all by acetate of lead. When heated, it yields a white vapour, of which the taste is not bitter, and leaves a very bulky charcoal. Nitric acid dissolves it, and the acid is decomposed, acting upon the substance, although with difficulty. If the solution be diluted, part of the substance precipitates in very bitter white flocculi.

This substance, containing the bitterness of the colocynth, appears to M. Vauquelin to be a particular principle. It is very soluble in alcohol, less so by far in water, but giving a solution of extreme bitterness, and frothing on agitation. He proposes for it the name of Colocyntine.—*Jour. de Phar.*

MEDICAL VARIETIES.

The Hippocratic Oath.

THIS relic of remote antiquity has for many years slipped from the common view of the Profession. We cannot imagine that affording it a place here can give offence elsewhere.

"I swear by Apollo the physician, and Æsculapius the surgeon, likewise Hygeia and Panacea, and call all the gods and goddesses to witness, that I will observe and keep this underwritten oath, to the utmost of my power and judgment.

"I will reverence my master, who taught me the art. E-

qually with my parents, will I allow him things necessary for his support, and will consider his sons as brothers. I will teach them my art without reward or agreement; and I will impart all my acquirements, instructions, and whatever I know, to my master's children, as to my own; and likewise to all my pupils, who shall bind and tie themselves by a professional oath, but to none else.

"With regard to healing the sick, I will devise and order for them the best diet, according to my judgment and means; and I will take care that they suffer no hurt or damage. Nor shall any man's entreaties prevail upon me to administer poison to any one; neither will I counsel any man so to do. Moreover, I will give no sort of medicine to any pregnant woman, with a view to destroy the child. Further, I will comport myself and use my knowledge in a godly manner. I will not cut for the stone, but will commit that affair entirely to the surgeons.

"Whatsoever house I may enter, my visit shall be for the convenience and advantage of the patient; and I will willingly refrain from doing any injury or wrong from falsehood, and (in an especial manner) from acts of an amorous nature, whatever may be the rank of those whom it may be my duty to cure, whether mistress or servant, bond or free.

"Whatever, in the course of my practice, I may see or hear (even when not invited,) whatever I may happen to obtain knowledge of, if it be not proper to repeat it, I will keep sacred and secret within my own breast.

"If I faithfully observe this oath, may I thrive and prosper in my fortune and profession, and live in the estimation of posterity; or on breach thereof, may the reverse be my fate!"—*Dr. G. Smith's Analysis of Medical Evidence.*

Apology of Professor Marcus.

It has been made a matter of bitter reproach to Marcus, that a mind of his acuteness should have been deceived by the Brownonian system, and that he should have done so much to propagate its dangerous doctrines. In this point he was associated with many eminent men of all nations, whom the lively mind of Brown delighted more than the uninviting doctrines of the humoral pathology. This system was a necessary evil; it was a step to something better, and by the experiments and discussions to which it gave rise, those scientific and philosophical principles were developed, on which medi-

cine is now studied. His work, entitled "Clinical Examinations of the Brownonian System," had an amazing influence in promoting the Brownonian system in Germany, and brought a crowd of students from all parts, to learn these tempting doctrines from so celebrated a teacher. The originally insignificant Bamberg became the first medical school in Germany.

Soon after the system of Brown had shaken the venerable fabric of ancient doctrines, a remarkable revolution took place in German philosophy and metaphysics, through the labours of Schelling and A. W. and F. Schlegel. These men, the founders of that system of metaphysics, known in Germany under the name of *Natur-Philosophie*, had come to Bamberg to witness the clinical experiments of Marcus. He appears to have become intimate with them, and to have adopted the principles of their philosophy as the ground-work of his lectures.

And to the cutting reproaches that were made him on all sides, on his changes of theory, he thus replies:

"To the accusation that we are to day the slaves of one theory, and to-morrow do homage to another; we shall not plead guilty, until it has been proved, that we have not gained by the change. The Brownonian system, as originally introduced and recommended by us, even now, stands on an infinitely higher pinnacle than the party-coloured doctrines of ancient medicine. All that can be expected from us, who only aspire to the name of practical physicians, is, that we shall advance with the spirit of the times, that we shall look into the gaps in our own hedges, and seek the better where it may be found. To distinguish the particular error or failing of an individual is an easy task; but, it requires no little courage, no little firmness, and no little opportunity when once enslaved by the bonds of opinion, to break our chains and reconquer the freedom of the mind."*—*Journal of Foreign Medicine.*

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* We cannot help contrasting this defence of the ingenious and restless Marcus, with the calm and philosophical spirit which distinguished one of his contemporaries under similar circumstances. When all Germany was enlisted on different sides of this celebrated controversy, the opinion of Blumenbach was anxiously inquired by every one who visited Gottingen, in the categorical terms of, Are you a Brownonian, or an anti-Brownonian? to which his uniform reply was, I am no ——onian at all. After relating this anecdote at his lectures in his own exquisite style, Blumenbach observed, "To be serious, gentlemen, if during a space of forty years you had seen as many theories as I have, appear in the horizon of science, with all the splendour of the morning sun, and then sink into oblivion with almost the rapidity of its diurnal course, you would receive all new theories with extreme caution."